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John Frederick Marshall and the British Mosquitoes

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CONTENTS

Introduction 3
Formative years 4
School and university days 5
Called to the bar 7
Blanche Marshall 7
The move to Hayling Island 8
Tennis at 'Seacourt' 10
The First World War 12
The Amateur Tennis Championships 12
The Hayling Control 12
The Hayling Mosquito Control 13
New discoveries 17
Mosquitoes and 'Seacourt' 17
Early success 18
The Institute at Hayling 20
The opening of the Institute 20
The role of the Institute 23
The work of the Institute 23
Purpose designed apparatus 26
Papers and publications 28
Contributions of Joan and Blanche 29
The Fate of the Institute 31
Management of the Institute 33
Membership and financial support 33
Residents to decide 35
Saved by the weather 36
Decision time once again 36
Publicity for mosquito control 38
Control activities suspended 38
A cash injection 38
The culmination of his career and the decline of the Institute 38
The British mosquitoes 39
The Second World War 41
The post war years 43
The Council assumes responsibility 43
Sale of the Institute 44
The current situation 45
On reflection 45
Acknowledgements 46
Appendix 46

BRITISH MUSEUM (NATURAL HISTORY) - 4 JUL 1991

John Frederick Marshall 1874–1949

INTRODUCTION

John Frederick Marshall, C.B.E., M.A., F.L.S., F.R.E.S. was one of Britain's outstanding entomologists and yet one who has received little real acclaim. Although an amateur in the true sense of the word, he founded the Hayling Mosquito Control and the British Mosquito Control Institute, became the foremost authority on British mosquitoes of his day and was invited by the Department of Entomology of the British Museum (Natural History) to update Dr W. D. Lang's *Handbook of British Mosquitoes* (which was published by the Museum in 1920). Although it began as a revision of the 1920 Handbook it developed to become a totally new monograph which even today is unsurpassed as a reference text on the mosquitoes of this country.

We believe that there is no better way of describing Jack Marshall's *The British Mosquitoes* than by using his own words, taken from the Introduction of the book. He wrote as follows:

> During the past eighteen years, knowledge relating to the mosquitoes of Britain has necessarily been extended in various directions, with the result that this book differs from its predecessor both in size and in a number of other respects.
>
> For instance, the number of known British mosquitoes is now twenty-nine, as against the twenty described by Dr Lang. The nine additions to the list include the two rare species *Aedes sticticus* and *Theobaldia alaskaensis* which, though discovered in Britain prior to 1920, were not referred to in the previous book, the former species at the time supposed to be merely a variety of *Aedes punctor*, and the latter species not having by then become recorded in entomological literature. The remaining 'newcomers' consist of five species previously known on the Continent—namely *Anopheles algeriensis, Aedes communis, Aedes leucomelas, Aedes flavescens* and *Culex molestus*—and two new species, *Theobaldia subochrea* and *Theobaldia litorea*, which were originally regarded merely as varieties of *Theobaldia annulata* and *Theobaldia morsitans* respectively. The British list has been further augmented by the discovery that two varieties of *Anopheles maculipennis* (namely var. *messeae* and var. *atroparvus*) occur in this country.
>
> The present book is illustrated by 172 text figures and 25 other drawings or photographs appearing on plates. Of this total of 197 illustrations, 93 are reproduced from the drawings made by Mr A. J. E. Terzi (59 of which appear in Dr Lang's 'Handbook') and 74 from drawings or photographs prepared by the British Mosquito Control Institute.

The close association between John Marshall and the British Museum (Natural History) is shown as too is his liaison with the eminent entomologists of the time. He acknowledged the help given to him with the following words:

> For assistance in the preparation of the text of the present book, the author is primarily indebted to two members of the staff of the Museum, namely, Dr W. D. Lang—whose original 'Handbook of British Mosquitoes' forms, as it were, the essential nucleus of the later work—and Dr F. W. Edwards, Deputy Keeper in the Department of Entomology. The text references to information supplied by Dr Edwards, numerous as they are, give but little indication of the invaluable advice and other help which he has so readily and continuously provided, and which the author can only hope to have utilized to the best advantage.

Among other entomologists whose assistance has been most gratefully received during preparation of the book special mention must be made of the late Major E. E. Austen, the late Miss A. M. Evans, Dr L. W. Hackett, the late Mr Eric Hearle, Professor D. Keilin, Dr C. G. Lamb, Mr P. G. Shute and Dr P. Tate.

In conclusion, the author ventures to refer to the unremitting work of his assistant, Mr J. Staley, whose many and diverse contributions to the contents of the book include all the photomicrography and a great deal of chaetotaxic and other morphological data which here appear for the first time.

FORMATIVE YEARS

John Frederick Marshall, known to his close friends as Jack, was born in London on 5 September 1874 the only child of Charles and Jennie Marshall. His father came from a wealthy family, Jack's grandfather being James Marshall, a founder member of the prestigious department store Marshall and Snelgrove.

James Marshall was born in Yorkshire, but moved south to London and worked as a shop assistant to the haberdashers Burrell, Son and Toby whose premises were at 10 Vere Street, London. On 5 April 1837 James Marshall, in partnership with a Mr Wilson, opened his first shop at 11 Vere Street.

The business began under the name Marshall and Wilson, but soon a Mr Stinton became the third partner. However, in 1848 James Marshall went into partnership with John Snelgrove from Dulcote, Wells in Somerset. The new business partnership of Marshall and Snelgrove flourished and in 1851 additional premises were purchased so that the store occupied a corner position extending into Oxford Street. Later more properties were acquired and the business expanded even further.

Fig. 1 The store, Marshall and Snelgrove in London

In the early 1870s one of the members of the firm went to Lyons, the silk producing city of France, and bought up large stocks of silk at low prices. This brought enormous profits which financed the construction of a new building to replace the assortment of shops then comprising Marshall and Snelgrove (Fig. 1). The wealth of the family as a result of these enterprises was shown by James Marshall's purchase of Goldbeaters Farm, a thousand acre estate at Mill Hill in North London.

In 1871 James Marshall retired and the management was handed over to James C. Marshall and John Snelgrove. One of their most important decisions was to open stores in Scarborough and Harrogate, followed by others in Birmingham, Manchester, Southport, Leicester, Leeds, York, Sheffield and Bradford. So what began as a small family business became a national institution.

The First World War, with its financial implications, saw the beginnings of a merger between the rival firms of Marshall and Snelgrove, and Debenhams. In March 1916 a working relationship was formed between the two London stores and a final merger took place in 1919. However, it was not until 1973 that Marshall and Snelgrove was renamed Debenhams.

James C. Marshall's youngest brother was Charles Marshall the All England cricketer. He married Jennie Hancock and they had one son, John Frederick (Fig. 2).

Fig. 2 Jack Marshall as a child with his mother, Jennie

School and university days

Jack (John) Marshall took the entrance examination for Rugby School at the age of sixteen and entered at the beginning of the summer term of 1890. Like his father he was a keen sportsman and played for the cricket XI in 1892–93, captaining the side in 1893. At Rugby School he was also the 'First Player' at rackets in the same years, a sport in which he won the Public Schools Competition. In addition to his sporting activities he was also an outstanding scholar and became head of the School.

On 30 September 1893 he was admitted to King's College, Cambridge as a Minor Scholar. He was promoted to a Major Scholarship in 1896 and went on to be placed in the First Class in both Part I (1896) and Part II (1898) of the Mechanical Sciences Tripos. In the Part II examinations he was awarded a distinction in Electricity and Magnetism. As a result of his studies he was awarded the degree of Batchelor of Arts in 1896 and Master of Arts in 1900. Also in 1900 he made application for a patent for an advertising

Fig. 3 Jack Marshall at Cambridge with members of the Banjo Band (Jack Marshall is seated on the right)

device which allowed letters forming words to be transposed automatically into different words. There is no information as to any commercial interest shown in this invention.

As well as being an excellent scholar, Jack Marshall was also an accomplised musician and, when at King's College, played in the banjo band (Fig. 3) and travelled to perform at many venues including Oxford and London.

At King's he followed his school successes at rackets and excelled at real tennis. The game, which dates from the thirteenth century, was called real tennis to distinguish it from the outdoor game of lawn tennis. Jack Marshall won both the Cambridge University Handicap Cup in 1896 and the University Challenge Cup in 1897, and represented Cambridge in the Inter-University Matches in 1897 in both the singles and doubles, then called the four-handed competition. In the singles his opponent was A. Page of Magdalen College, Oxford whom he beat 6–0, 6–0, 6–3. He partnered E. Garnett (Trinity) in the doubles and they beat the Oxford pair of A. Page and T. A. Garnett (Christchurch) 6–4, 6–1, 6–3.

His tennis career continued beyond his university days and he became one of the few people in the country to own a private real tennis court.

Called to the Bar

Jack Marshall also studied law and on 25 April 1902 he was called to the Bar at the Inner Temple. However, he did not subsequently practice law and had no chambers address according to the records of The General Council of the Bar, although he featured on the Bar Lists from 1902–49. Unfortunately, the records of the Honourable Society of the Inner Temple suffered war damage in 1941 and the admissions for the early part of this century were destroyed. The Council of Legal Education, the educational body of the Inns of Court, do not have records going back that far, so details of Jack Marshall's legal training are not available. All that can be said is that he would have had to have taken and passed the Bar Examination.

Blanche Marshall

Jack was eventually to meet and marry Emily Blanche Hughes, known always as Blanche (Fig. 4). She was born in Chelsea, London on 24 December 1871. Her first marriage was to a Major Gray and they had one daughter, Margery who was born on 8 October 1892. It is believed that Major Gray was reported missing, presumed killed, during the Boer War. At about this time Blanche became involved with circus people and used her psychic powers to become employed as a fortune-teller. Later she set up as a successful society fortune-teller and lived in Vigo Street, London. She is said to have had a carriage and pair smarter than that of Lily Langtree. Blanche kept press cuttings of her life and lifestyle, although during the years she was married to Jack, these were locked away and no one was allowed to see them. Blanche became involved with a Mr Sinclair and on 13 April 1898 she gave birth to a second daughter, Iris. Sinclair was a Cambridge Graduate and the founder of the Bath Club in London. How this relationship terminated is unclear, although it is said that he emigrated to Australia.

Despite the fact that they would appear to have little in common, Jack and Blanche were very much attracted to each other: Blanche to Jack because he was scholarly and rich, and Jack to Blanche because she was beautiful, charming, flamboyant and mysterious, and perhaps because she was a little older than him. Although small in stature—she was said to be no more than 5 foot tall—Blanche had a powerful personality and exerted considerable influence over Jack.

Fig. 4 Jack and Blanche Marshall in the grounds of 'Seacourt'

They married in 1902 and lived in a rented house in Hayling Park Road, Croydon called 'Somerleyton'. It was there that Jack's only daughter Joan was born on 12 April 1907.

The move to Hayling Island

Jack's father, Charles, died in February 1907 after a hunting accident, and when Joan was six weeks old the family went to live with Jack's mother, Jennie, in Primrose Hill Road, near London Zoo.

Jennie died the following year and, having by now inherited the family fortune, Jack and Blanche decided to move to Hayling Island. They had discovered Hayling when driving to Portsmouth some time before, being curious to visit because of the similarity of the place name and their address in Croydon. They thought that the flat Island with its salt marshes was the most lovely place that they had ever seen, and decided to buy land there and have a house built. So Jack purchased a six acre site on the south coast of the Island on which there was already a small two-bedroomed cottage overlooking the sea.

At first, Joan and her nanny lived in the cottage and Jack and Blanche took furnished accommodation nearby while their house was being built. The house was named 'Seacourt' (Fig. 5), and had a dining room, morning room, a drawing room facing the sea, and bedrooms, dressing rooms and nurseries for the family. There were also bedrooms and bathrooms for guests as well as servants' quarters. He also had a real tennis court built in the grounds of his house (Figs 6 & 7). This was said to be one of the

Fig. 5 'Seacourt'

Fig. 6 The tennis court at 'Seacourt', Hayling Island from the outside

finest courts in England and explains the name given to the house. While the house was being built, there were five gardeners turning the field into a garden.

There are many stories of Blanche's supposed psychic powers. One of these relates to the construction of the court. Blanche is reputed to have exclaimed 'Out, all of you the roof is going to fall in'. Although it appeared to be perfectly safe Blanche became so angry at not being taken seriously that Jack ordered the men to stop work and everyone left the building. Suddenly there was a crash accompanied by clouds of dust as the roof came to the ground. The only person who was not amazed was Blanche who apparently said 'What did I tell you, Jack? You must admit there are advantages in being married to a witch.'

Fig. 7 The court at 'Seacourt'

Tennis at 'Seacourt'

When the court was eventually completed in June 1911 there was a party for the opening match which was between Peter Latham, a world tennis and rackets champion, and Cecil 'Punch' Fairs, who was the current world tennis champion. Another champion, C. F. Covey, sometimes trained at 'Seacourt', and Duncan Wilson of Oxford University and Prince's became the full-time professional in 1914. Soon after the court was completed Jack caught cold while he was walking back through the garden to the house on his way to have a bath after playing tennis. So he decided to extend the house to join with the tennis court. The extension included five additional bedrooms and a music room, as well as storerooms and an extra coal cellar.

Jack Marshall's best year in tennis was undoubtedly 1914, the year of the beginning of

the Great War. In the final of the preliminary event in the Marylebone Cricket Club (M.C.C.) matches held at Lord's, Jack Marshall beat Captain Price by three sets to two, in a hard fought game that was reported to be the best match of the Championship. He went on to beat Major Cooper-Key for the Silver Prize and Eustace Miles for the Gold Prize. In the same year, Jack Marshall reached the final of the amateur championship of France, La Coupe de Paris, but was beaten by Captain Price, literally by a stroke.

It may now appear somewhat strange that the M.C.C. should have been the centre for tennis. The first headquarters of English tennis was established in 1820 when the 'James Street Racquet' opened in the Haymarket. When it closed, the headquarters was transferred to Lord's Cricket Ground where, commencing in 1867, the Marylebone Cricket Club awarded the Gold and Silver Prizes.

While Jack was in Paris for the French Championships he arranged to go to America the following September to play tennis with the American champion Jay Gould. He considered that the war would be won by the army and navy, and saw no reason for changing his plans. So Jack, Blanche, their three daughters and the maid Kate Saunders sailed from Liverpool to New York in the *Lusitania*. Here there is another story of Blanche's prophesies. Three weeks before the return journey was planned, Blanche is said to have foretold the sinking of the *Lusitania* on that voyage and made Jack change the reservation. Blanche was apparently so relieved at the change of plans that she was not even perturbed when Jack told her that they should all have to travel in inferior cabins.

As well as playing at his own court, Jack Marshall was also a member of Lord's, Prince's, Queen's, Hampton Court and Brighton, being a Director of the last. He was an

Fig. 8 Jack Marshall on court

accomplished player and, according to E. B. Noel and J. O. M. Clark, the authors of *A History of Tennis*:

> Mr Marshall's style is quite distinctive and most attractive if not orthodox in certain particulars. He is as neat as a dancer on his feet and gets to the ball with astonishing facility. He is a believer in volleying far more than the ordinary player, both in return of service and in the rest . . . But a nervous temperament and a delicate constitution have prevented him doing justice to himself in matches . . . (Fig. 8).

The First World War

By the summer of 1915 Jack was working in London for the Inventions Department of the Ministry of Munitions and returned to 'Seacourt' only at weekends. For a brief time the Marshalls had a furnished house in Brighton so that Jack could travel home from London every night. At 'Seacourt' there were now upwards of a dozen officers instead of the usual guests, billeted there after a School of Musketry was established on the Island. The house was also used as a convalescence home for military personnel wounded in the War.

Later during the War Jack went to Birmingham and was involved in the design of tanks but by September 1918, as the First World War was coming to a close, he was back in London and the family moved into a maisonette in Baker Street.

The Amateur Tennis Championships

In the Amateur Championships, the blue ribband of Real Tennis, Jack Marshall reached the second round in 1919 and in 1920 was narrowly beaten in the final by E. A. C. Druce by three sets to two, 3–6, 6–3, 6–4, 5–6, 6–5. He reached the second round in 1921, but did not enter in 1922 when the venue for the competition was moved to Manchester. Back at Queen's Club in 1923 Jack Marshall was eliminated by a walk over in the first round. He continued to play first-class tennis up to 1937, giving up at this time after developing what he described as 'a slight, but awkwardly situated rupture'.

THE HAYLING CONTROL

Before Jack moved to Hayling Island he had no special interest in natural history, but he quickly discovered that Hayling had an enormous mosquito problem. He is reputed to have said 'Either the mosquitoes go or I go, and I refuse to be driven out of my own house'. At that time those living in the central residential district were not able to sit or work in their gardens in the late afternoon and evening, and spectators at outdoor events had to cover themselves in blankets to protect against mosquito bites. So, in common with the other residents of the Island, Jack Marshall began to take a great interest in these blood-feeding insects.

In August 1920, with his usual dedication and showing his powers of organization and leadership, Jack Marshall undertook to collect information on anti-mosquito measures. In his efforts to find details of control methods he was introduced to a leading authority on mosquitoes, Mr F. W. Edwards of the British Museum (Natural History) in London. In a letter to Jack Marshall dated 20 August 1920, Mr Edwards stated that the nuisance

mosquitoes were most likely to be the 'salt marsh' species *Aedes caspius* and *Aedes detritus*. During September and October 1920 thousands of mosquitoes were collected by local people from the central residential area. It was during these early surveys that Jack started his long and profitable association with John Staley. Staley was a gardener with a keen interest in natural history and in the early days he spent his Sunday afternoons with his daughter, Ivy, collecting mosquitoes and locating and mapping their breeding sites.

The mosquitoes were identified using the recently published *Handbook of British Mosquitoes* by William Dickson Lang. Apart from small numbers of *Culex pipiens* and *Theobaldia* (now *Culiseta*) *annulata*, almost all were found to be *Aedes detritus* (known at that time as *Ochlerotatus detritus*). Pools and ditches adjacent to the residential area were examined, but it was not until the following year that larvae of *Aedes detritus* were found in accumulations of stagnant brackish water about a mile and a half from the centre of the residential district. Jack Marshall appreciated from American literature that coastal mosquitoes could fly several miles inland and so he believed that these sites were the source of the problem.

Impetus was given to the campaign when, on 8 April 1921, Mr Edwards delivered a lantern lecture at the home of Jack Marshall about mosquitoes and their control in various parts of the world. After the lecture a general discussion took place and a provisional committee was formed to investigate the possibility of taking definite measures to alleviate the mosquito nuisance on the Island.

The early 1920s was a time of great interest in British mosquitoes because of the problems, which had arisen immediately after the First World War, when malaria was transmitted in this country by native mosquitoes. This followed the return of soldiers with the disease from the Mediterranean to centres in southern England, and Government reports were written and there were many papers appearing in scientific journals. Also the South Eastern Union of Scientific Societies formed a Mosquito Investigation Committee which published a series of circulars on *Anopheles* mosquitoes.

The Hayling mosquito control

On 13 April 1921, a further meeting, attended by over seventy local residents, was held at 'Seacourt'. The proposal to actively commence an anti-mosquito campaign was supported by all present and a number of sub-committees were established with responsibilities for the various aspects of the proposed work. The main committee, which was to guide the others, was the 'General Purposes Committee', chaired by Sir Richard Gregory D.Sc., F.R.A.S. Other members of the Committee were Dr J. R. S. Robertson (Honorary Treasurer), Mr E. M. Fletcher M.A., Dr A. J. May M.B., B.C., Mr L. V. Turner B.Sc. and Mr J. F. Marshall M.A. (Honorary Director). It was decided that the organisation should be called 'The Hayling Mosquito Control'. The control programme was commenced in June 1921 when the Island was divided into thirteen administrative sections (A to H, J to M and P), each run by a section secretary (Fig. 9). A circular in the form of a poster (Hayling Mosquito Control General Circular No. 1) was used to advertise the campaign and was delivered to every household in the southern part of the Island (Fig. 10). A letter (HMC 1a, later revised as 1b), accompanied by a reply card (Figs 11 & 12), outlining the aims of the control programme and asking for volunteers to assist in the work and for financial support, was also circulated. As the scheme progressed, further areas were incorporated, section R being added in September 1921 and sections N, Q, S, T, U and X (on the mainland north of Hayling) in June 1922, making a total of twenty. Sections W and Y on the mainland were planned but it would appear that they were never operational.

One hundred and three people joined the Control in 1921, 53 of whom wished to take

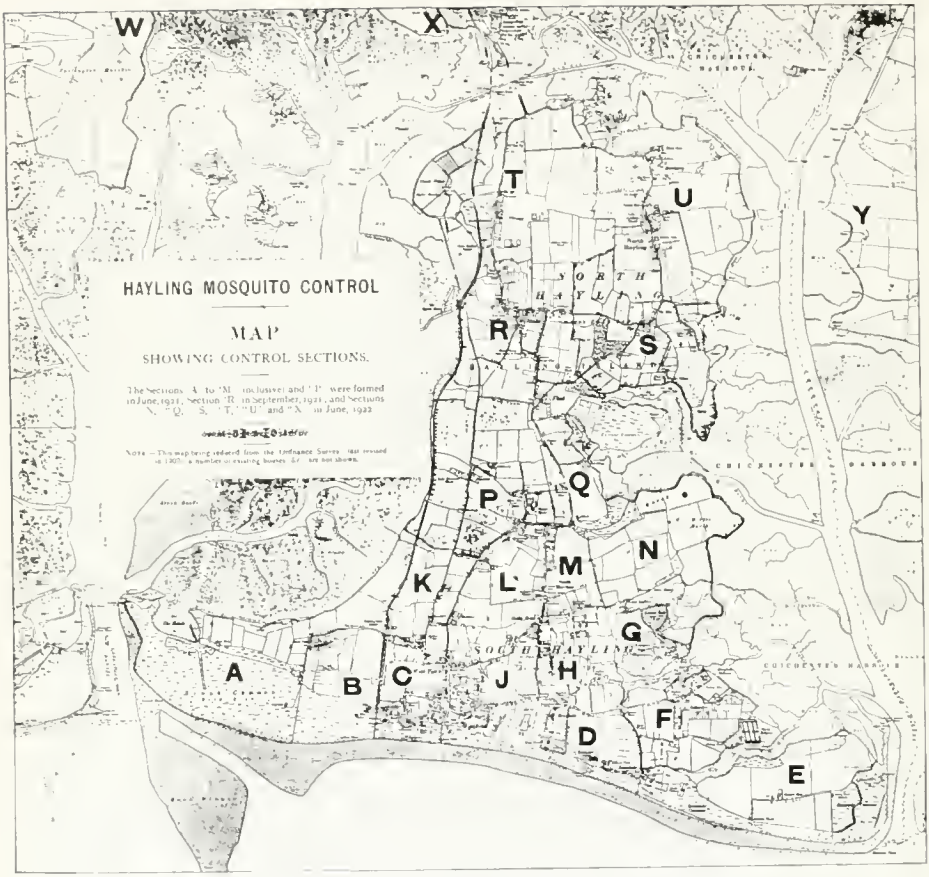


Fig. 9 Map of Hayling Island showing the control sections

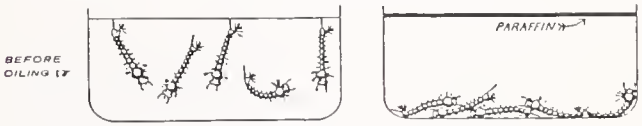
an active part in the scheme and a total of £32.0s.6d. was received in subscriptions. In order to carry out the practical work a room at 'Seacourt' was equipped as a Laboratory, all of the necessary apparatus and materials being supplied by Jack Marshall. Work commenced at once to deal with the larval habitats already located and to search for others. Every larval habitat that was found was noted on a separate page in the 'Control Record Book' for that section and indicated on a large scale wall map covering two walls of the improvised laboratory. The 'register number' of each ditch, pond etc. was marked on the map and a red circle drawn around it to emphasise the fact that larvae may be present. The red circle was covered by a colour-coded washer to indicate the current status of the site. Thus white indicated that it was dry; black that it was free from larvae for no apparent reason; yellow that larvae were absent but that predators such as fish were present; green that paraffining or larviciding operations had been carried out. Three weeks after a control operation had taken place the green washer was removed to reveal the red circle showing that further inspection was necessary.

HAYLING MOSQUITO CONTROL.
GENERAL CIRCULAR NO 1

THE MOSQUITO NUISANCE.

A MOSQUITO is a two-winged fly with a long and sharp beak called the "proboscis" The female mosquito jabs her proboscis into you and sucks your blood. She then departs and soon afterwards lays her EGGS (generally about 200) on the surface of some convenient piece of water often she adds insult to injury by laying them in a tank or pond in your own house or garden In a few days each of these eggs hatches into a "wriggly" thing about three eighths of an inch long called a LARVA Two or three weeks later each of these "wrigglers" (unless you kill them in the meantime) changes to a "PUPA" out of which a FULL GROWN MOSQUITO emerges at the end of two or three days You can very easily

KILL THE WRIGGLERS



BY SPRAYING PARAFFIN

on the top of the water it will suffocate them all in less than an hour

These wrigglers may be found breeding in any kind of water whether it be in ponds ditches marshes puddles old cans cisterns water butts or sagging gutters on roofs In recent years a large number of cases have been recorded where the inhabitants of mosquito ridden districts after carrying out a thorough search for actual and probable "breeding places" of the above kind, have found it a comparatively easy matter to

KILL THE WRIGGLERS & EXTERMINATE THE MOSQUITOES

from the entire neighbourhood

In view of the ever-increasing nuisance (to say nothing of the danger to health) arising from the prevalence of mosquitoes in Hayling Island, a committee has been formed for the purpose of organising a comprehensive "anti mosquito" campaign upon the most approved and up to date lines For some months past the Committee, has been in communication with the leading authorities on the mosquito problem and it is now in possession of the very latest information concerning the methods at present being employed in various parts of the World It has been decided that the organisation shall be known as

THE HAYLING MOSQUITO CONTROL

As a preliminary measure the Island has been mapped out into a number of sections to each of which an Honorary Secretary has been appointed. Each of these "Section Secretaries" has undertaken to ask the inhabitants of that section to assist in the campaign to contribute to them all necessary information and to receive from them all requests enquiries and other communications relating to the work of the section.

Bearing in mind the fact that tracts of country (such as the Panama Canal zone) many hundred times larger than Hayling Island have been most successfully cleared of mosquitoes, it is not too much to assert that the proposed scheme

IS CERTAIN OF SUCCESS

PROVIDING THAT EVERYONE WILL DO THEIR BEST TO HELP IN AS MANY WAYS AS POSSIBLE

Here are some of the ways in which *YOU can render most valuable assistance* —

1 By guarding (where for your water butts, fishponds &c. to prevent mosquitoes from laying their eggs in them by skimming away all waste water, by frequently examining your cesspools ponds ditches &c. and killing any "wrigglers" by spraying a little paraffin on the water by searching your toilets entire visitors &c. to the end for "wrigglers" mosquitoes and destroying any that you find by the fumes of burning sulphur pyrethrum or burning a Powder, or advising your friends to adopt similar precautions and by helping them to do so

2 By reporting to your Section Secretary the location of any pond, pool ditch water tank &c. in which you notice the presence of any "wrigglers"

3 By taking part in field expeditions having for their object the "rounding up" of breeding places their subsequent treatment by paraffin sprays, or other means the planning of filling in and drainage remedies &c

4 By collecting mosquitoes (with notes as to dates times places &c.) so that various questions concerning the distribution of different species on the Island may be worked out.

5 By subscribing to the fund required to meet the expenditure incurred by (i) the purchase of paraffin pumps sprays fumigating apparatus and materials &c. (ii) the employment of labour for the filling in and draining of places in which waste water is found to collect (iii) the printing of circulars reports and other literature for distribution among the Members of the Control and (iv) for various other purposes

IF YOU WILL HELP

in any, or all of the above ways you are urgently requested to *notify your Section Secretary* as soon as possible so that your name may be entered on the list of Members and the necessary information forwarded to you relating to the work which you are willing to do.

COMPLETE SUCCESS CAN ONLY BE ATTAINED BY UNITED EFFORT

YOU live in Section D of which the Hon. Secretary is

J F Marshall
Seacourt

If the name of the Section Secretary be omitted (and only in this case) you should communicate with the General Hon. Secretary Mr J F MARSHALL, Seacourt Hayling Island

Hayling Island

Fig. 10 Poster that commenced the Hayling Mosquito Control in 1921

H.M.C. 1b

July, 1921.

Dear Sir,

I beg to enclose for your consideration a circular explaining the objects of the Hayling Mosquito Control.

Considering that we have in England no fewer than twenty-five different kinds of mosquitoes (at least two of which are known to transmit malarial fever from the sick to the healthy) it is a surprising fact that, except in certain large military areas, the "control" of mosquitoes has seldom been undertaken in this country.

It is not an exaggeration to say that whenever the climatic conditions are favourable (as, for instance, during the autumn of last year) the mosquitoes of Hayling become a veritable menace not only to the comfort but actually to the health of the entire population of the Island.

In many parts of the world, notably in India and in America, the results of "anti-mosquito campaigns" extending over large tracts of country have proved beyond dispute that mosquitoes infest **those districts only** of which the inhabitants are **either too ignorant** concerning the various means available for the suppression of the pests, **or too lazy** to take part in the necessary work. It has been shown in literally hundreds of cases that **mosquitoes can be exterminated from any district whatever, provided that a sufficient number of the inhabitants will undertake to "lend a hand" in some way or another.**

The Committee of the Hayling Mosquito Control has spared no pains to collect the very latest and most detailed information concerning the various methods which are at present being employed both at home and abroad. In order to test the suitability of particular methods to the conditions actually existing in Hayling, a number of experiments have already been made by different members of the Committee, and plans are now being drawn up for greatly extending this experimental work and for carrying it on continuously throughout the year.

I earnestly hope that you will find it possible to give your assistance in **at least one** of the ways indicated in the accompanying circular, and thus **help to assure the complete success of the Anti-Mosquito Campaign in Hayling.**

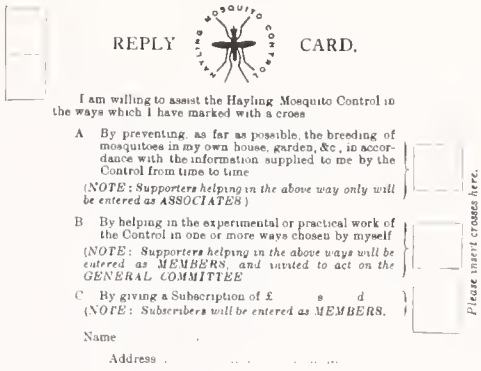
I shall be much obliged if you will kindly fill up the enclosed reply card, which will be called for in the course of a few days, so that your name may be entered on the list of Members and the necessary information conveyed to you relating to the work which you feel disposed to do.

I shall be glad to send you additional reply cards for the use of those of your household who may also be willing to become Members of the Mosquito Control.

I am,
Yours very truly,

Secretary of Section
Hayling Mosquito Control.

Fig. 11 Letter introducing the anti-mosquito campaign to the residents of Hayling Island



REPLY CARD.

I am willing to assist the Hayling Mosquito Control in the ways which I have marked with a cross

A By preventing, as far as possible, the breeding of mosquitoes in my own house, garden, &c., in accordance with the information supplied to me by the Control from time to time

(*NOTE: Supporters helping in the above way only will be entered as ASSOCIATES*)

B By helping in the experimental or practical work of the Control in one or more ways chosen by myself

(*NOTE: Supporters helping in the above ways will be entered as MEMBERS, and invited to act on the GENERAL COMMITTEE*

C By giving a Subscription of £ s d

(*NOTE: Subscribers will be entered as MEMBERS.*

Please insert crosses here.

Name .

Address . . . . . .

Fig. 12 Reply card which accompanied the introductory letter

New discoveries

A number of new and interesting facts were soon established regarding *Aedes detritus*, among them that it could be found not only in normal strength seawater, but in seawater which had been either concentrated by evaporation or diluted by rainwater.

Investigations were also begun in 1921 to determine the quantity of paraffin necessary to treat a given area of water. An ordinary pneumatic sprayer was employed, and a series of tests showed that one pint of paraffin was sufficient to cover forty square yards and that the operation took only two minutes to complete. It was found that under certain conditions, such as when clumps of reeds were present, paraffining was not totally successful. In such cases it was found necessary to apply larvicides. A number of chemicals had been suggested, but details of the concentrations and methods of application were not available. Trials were therefore carried out and it was eventually discovered that a well-known disinfecting fluid called 'White Cross Fluid' killed mosquito larvae even when used in extremely low concentrations. The experiments were reported in Hayling Mosquito Control Circular No. 4 (1922) and showed a dilution of 1:16,000 to be effective. It was claimed that the liquid in this low concentration was quite harmless to animals and humans if drunk accidentally.

Mosquitoes and 'Seacourt'

At first there was a certain amount of opposition to the scheme until it was realised that it did not cause personal inconvenience and that it would benefit the community enormously. To help familiarise the residents with the scheme and its advantages, a billiard room at 'Seacourt' was converted into a Demonstration Museum in which the aims and progress of the campaign were illustrated. Lectures and demonstrations relating to the control work were also given in the Museum.

The Demonstration Museum proved to be popular among professional organisations, naturalists and medical workers. Visitors included the British Medical Association, the Zoology Section of the British Association, the Hampshire Field Club and the Bournemouth Natural Science Society.

Early success

During the summer and autumn of 1921 a number of larval habitats were permanently abolished by drainage and many others were treated with either paraffin or other larvicides. Articles describing the work appeared in various publications. One in the medical journal *Health* (5 November 1921) attracted the attention of Colonel S. P. James of the Ministry of Health, an authority on anti-malaria programmes. Colonel James wrote to Jack Marshall (Fig. 13) and arranged to visit Hayling Island in January 1922 to observe the work in progress. Colonel James subsequently offered his support and followed the work closely during 1922–23 and allowed his assistant, Mr P. G. Shute, to help in the scheme during this time. Also, in 1923 the Ministry contributed a 'scientific grant' of £100 towards the labour costs of some experimental studies. At this time the Havant Rural District Council began an annual donation of £75 to assist in the anti-mosquito work. Despite these grants and the subscriptions from residents, expenditure

Room 29 IV.
Ministry of Health,
Whitehall,
S.W.
4th January, 1922.

Dear Sir,

An article "Mosquitoes in England" published in "Health" Vol. 1. No. 2 of 5th November gives some particulars of an antimosquito campaign which it is understood was conducted under your direction in Hayling Island last year. It is thought that the methods and results may be useful in other mosquito-infested localities and I have therefore been instructed to approach you with a view to obtain as full details of the campaign as may be possible. It occurs to me that I could best obtain the necessary information at a personal interview and if you approve this course I shall be very glad to visit Hayling one day next week for the purpose. If Tuesday the 10th would suit you I would arrive at about 1.20 on that day.

Yours faithfully,
S. P. James.

Medical Officer and
Adviser on Malaria,
Ministry of Health.

J. F. Marshall, Esq.,
General Secretary,
Antimosquito Campaign,
Hayling Island,
Hants.

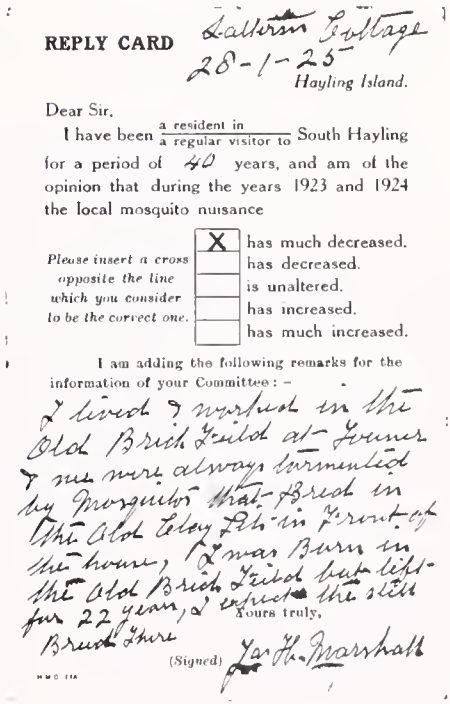
Fig. 13 Letter to Jack Marshall from Colonel S. P. James

exceeded income every year and Jack Marshall made good the deficit personally, donating £120 in the first two years of operation.

The task of controlling the Hayling mosquitoes continued throughout 1923 and 1924 and, at last, the problem abated. Evidence of the success came from many sources including several 'postcard canvasses' of the residential district. At the end of June 1923 a letter was sent to 164 members of the Control asking for their opinions:

> as to the effect of the work which is being done to diminish the local nuisance arising from the prevalence of the salt-water mosquito (*Ochlerotatus detritus*) by abolishing collections of stagnating water and by other means.

A stamped reply card was sent with each letter, the recipients being asked to indicate their assessment of the situation. One hundred and twenty-three replies were received, 82 (67%) stating that the problem had 'much decreased', 34 (28%) that the problem had 'decreased' and 7 that it was 'unaltered'. No replies indicated that there was an increased problem. In the census taken at the end of 1924 (Fig. 14), 168 people were canvassed and there were 125 replies. 92% of those who replied indicated that the problem of mosquito nuisance was 'much decreased'.



REPLY CARD Salterns Cottage 28-1-25 *Hayling Island.*

Dear Sir,

I have been a resident in / a regular visitor to South Hayling for a period of 40 years, and am of the opinion that during the years 1923 and 1924 the local mosquito nuisance

Please insert a cross opposite the line which you consider to be the correct one.

X	has much decreased.
	has decreased.
	is unaltered.
	has increased.
	has much increased.

I am adding the following remarks for the information of your Committee: –

I lived & worked in the Old Brick Field at Former & we were always tormented by Mosquitos that Breed in the Old Clay Pit in Front of the house, I was Born in the Old Brick Field but left for 22 years, & expect the still Breed there

Yours truly,

(Signed) Jas H. Marshall

Fig. 14 Reply card from the canvass of 1924 (coincidentally from a resident named Marshall)

THE INSTITUTE AT HAYLING

Because the activities of the Hayling Mosquito Control expanded so rapidly and because of the importance that Jack Marshall attached to the work, the accommodation at 'Seacourt' was no longer adequate. Blanche was also a driving force behind the moving of the mosquito work from the house, as she considered that there was no longer sufficient room left for entertaining the many guests. Jack and Blanche Marshall had a wide circle of friends who visited and stayed at the house. Entertaining was a major activity, and much of Jack's considerable wealth was spent on his guests and giving free books and pamphlets to his many visitors. Among their close friends, and frequent visitors to 'Seacourt', were Sir Richard Gregory, the editor of *Nature*, who once presented Jack with a parrot and began his life-long interest in these birds; Sir Theodore Cook, editor of *The Field*; C. G. Lamb, Professor of Engineering at Cambridge, who had an interest in Psychic Research; H. G. Wells (the author of such famous works as *The Time Machine*, *Kipps*, *The Invisible Man* and *The History of Mr Polly*); and Thomas Horder, later to become Lord Horder, the Royal Physician.

In contrast to his wish to entertain his friends he had little time for relatives apart from his immediate family. Joan said that her father's dislike for relatives was rivalled only by his disapproval of the Church. She recalled that while at Cambridge Charles Chamberlain was Jack's best friend and he later entered the clergy. This, to Jack, was the most terrible thing to do and as a result their friendship ended. One day, Joan said

> I was playing golf and met a girl and asked her back to the house for lunch. She turned out to be Charles' daughter and when Jack found out he made her leave the house at once.

In order to overcome the problems raised by Blanche, and to expand the facilities and activities of the Mosquito Control, Jack decided to erect, at his own expense, a separate building in which the various aspects of the mosquito work could be performed effectively. He hoped that the required financial assistance would be forthcoming to make the Institute self-supporting and establish the control programmes on a permanent basis.

A site was selected (Fig. 15) in the extensive grounds of 'Seacourt' and construction of the building was started in February 1925 and completed in August of the same year (Fig. 16). In June 1925 Sir Richard Gregory, who had been Chairman of the Hayling Mosquito Control from the outset, approached a number of eminent scientists with regard to the formation of a Council for a new organisation, which it was proposed to call 'The British Mosquito Control Institute'. At this stage John Staley (Fig. 17) left his employment as a gardener and was appointed as Chief Assistant to Jack Marshall, the Director of the Institute.

The opening of the Institute

The Institute was formally opened at 4 pm on 31 August 1925 by Sir Ronald Ross, Director of the Ross Institute and Hospital for Tropical Diseases (Fig. 18). The ceremony was attended by over 350 guests, among the more notable being Sir David Bruce, Chairman of the Governing Body of the Lister Institute; Sir Richard Gregory; Colonel S. P. James, Medical Officer and Advisor on Tropical Diseases to the Ministry of Health; Mr C. Tate Regan, Keeper of Zoology, Natural History Museum; and Sir

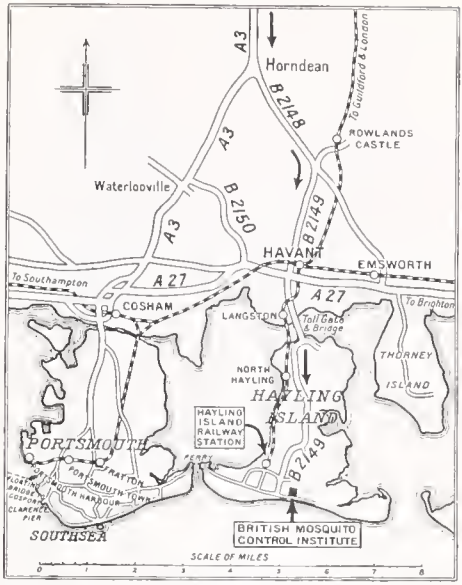


Fig. 15 Map of Hayling Island showing the location of the Institute

Fig. 16 Exterior of the British Mosquito Control Institute. Main entrance and driveway

Fig. 17 John Staley

Fig. 18 The opening ceremony, 31 August 1925. Left to right: Colonel S. P. James, Sir David Bruce, F.R.S., Mr C. Tate Regan, F.R.S., Sir Richard Gregory, Sir Ronald Ross, F.R.S., Mr J. F. Marshall

William Simpson, Director of Tropical Hygiene, Ross Institute and Hospital for Tropical Diseases.

The role of the Institute

From 31 August 1925 there were therefore two organisations: the Hayling Mosquito Control, responsible for local control activities, and the British Mosquito Control Institute with responsibilities for research, advisory and educational work. The two organisations were kept entirely distinct from one another. At a meeting of the Council of the Institute, held in London on 30 March 1927, it was decided that:

> (i) the Hayling Mosquito Control should in future be known as the *Hayling Island Branch* of the British Mosquito Control Institute
>
> (ii) in view of the fact that the work of the Hayling Island Branch was being directed, and to a large extent carried out, by the Institute staff, one-fourth of the funds locally subscribed should be allocated to the Institute, and the remaining three-fourths expended upon materials and outside labour required for the purpose of the local work.
>
> (iii) in the event of additional branches of the Institute being formed in other parts of the country, a similar apportionment of the funds subscribed for the purpose of such Branches should be made.

Up to that time, the British Mosquito Control Institute had not received any financial assistance from official bodies or from local authorities, but had to rely almost entirely upon voluntary contributions either in the form of donations or of membership subscriptions.

The work of the Institute

The work carried out by the British Mosquito Control Institute may be considered under the following four headings:

Mosquito Control

The routine of the mosquito control scheme carried out by the British Mosquito Control Institute involved the following four operations:

(1) All collections of stagnant water were periodically inspected and any mosquito larvae found were brought to the Laboratory for examination.

(2) Full details of the species and larval instars, the salinity and pH of the water, the vegetation and any other points of scientific interest were noted in the Register of Specimens.

(3) The breeding place of each batch of larvae collected was treated by oiling, larviciding, draining (Figs 19–21) or other appropriate means.

(4) Details of the exact location of each sample and the control measures used were marked on a large-scale map by means of discs of various colours.

With its facilities and experience in mosquito control and its qualified staff, the Institute was well placed to carry out advisory, educational and research work in relation to mosquitoes and their control. Details of these activities are as follows:

Fig. 19 Jack Marshall and an assistant surveying a site in Hayling Island

Advisory work

Advice on all aspects of mosquitoes and their control was supplied by correspondence and by inspection visits made by Jack Marshall or one of his assistants, often John Staley. No charge was made for any advice given by correspondence, which included the identification of mosquitoes sent to the Institute. From each enquiry, reference was made to existing records and full information was provided to each enquirer based on all of the information at hand. By early 1930 the number of localities from which enquiries had been received exceeded 1100. At this time the 'Register of Specimens' showed that over 4300 batches of larvae had been examined, providing life history data on a large scale.

In addition, mosquito control inspections were made in numerous coastal and inland areas, advice given and, when requested, appropriate treatment of larval habitats carried out. This aspect of the work was both time consuming and financially costly, but the accumulation of data on distribution, life histories and morphology was invaluable, and without it the monograph *The British Mosquitoes* could never have been written.

Educational work

This aspect of the work was divided into the following four categories:

(1) The preparation of literature (Fig. 22), illustrations and photographs on the British mosquitoes and the collection of data on control methods. Booklets, pamphlets, a

Fig. 20 Draining a salt-marsh area by opening a sluice valve during low tide

selection of prepared slides, sets of lantern slides and living mosquitoes were all obtainable at a cost from the Institute as were prepared items and demonstrations suitable for Health and other exhibitions.

(2) The provision of a Demonstration Museum (Fig. 23) showing all aspects of mosquitoes including maps, diagrams, preserved and living specimens, lantern slides and apparatus used in control programmes. The Museum was open to the public from 3 to 4 pm on week days and at other times by appointment. The popularity of the Museum may be judged by the fact that by November 1931 it had been visited by 9164 people.

(3) The provision of courses. Two-day instructional courses in laboratory and field work were run on the first Tuesday of each month. These courses were designed for 'sanitary officers, persons going abroad, and others who had no time (or no desire) to acquire more than an elementary knowledge of the principles and practice of mosquito control work'. An additional day's instruction was also available for those wishing to obtain more detailed information on any of the topics covered in the two-day course. The fee for the two-day course was two guineas and the three-day course, three guineas.

(4) The establishment of a comprehensive library. This contained a large selection of books, pamphlets and other material relating to the control of mosquitoes.

Fig. 21 A surface drainage channel constructed to prevent mosquitoes from breeding in a coastal marsh

Research work

Facilities for research and practical instruction were furnished both by the Laboratory on the ground floor (Fig. 24), a photographic room (Fig. 25) and the two specialist research rooms on the first floor. The main laboratory contained an extensive collection of mounted specimens and microscope slides to allow study of morphological characteristics and to act as a reference collection. It was also possible for visiting research workers to use the facilities of the Institute to investigate specific problems.

The main laboratory was equipped with various pieces of apparatus for the examination of larvae and adults, the testing of larvicides, the rapid determination of salinity, pH etc of water. Provision was also made for experiments to be carried out on both adult and immature stages of mosquitoes.

Purpose designed apparatus

With his knowledge of engineering it is not surprising that many new pieces of apparatus were designed in the Institute by Jack Marshall (Fig. 26). Among these were a rearing chamber, a microscope projection apparatus, an automatic titrator and, perhaps the most significant of all, optical apparatus which allowed highly detailed photographs of mosquitoes to be taken. The first two of these were marketed under the trade name of 'Moscon', an abbreviation of Mosquito Control.

The rearing chamber, described at the time as the 'Moscon' Incubator, was designed to rear mosquitoes and consisted of a flanged glass jar of about 550ml capacity above which was attached a flanged glass cylinder of similar dimensions having a wire-gauze cover. The jar and cylinder were held together by a girdle-clip composed of a complex spring. The overall height of the apparatus was approximately 22 centimetres. Two models of the incubator were available, A and B. The former was fitted with a rotatable L-tube for

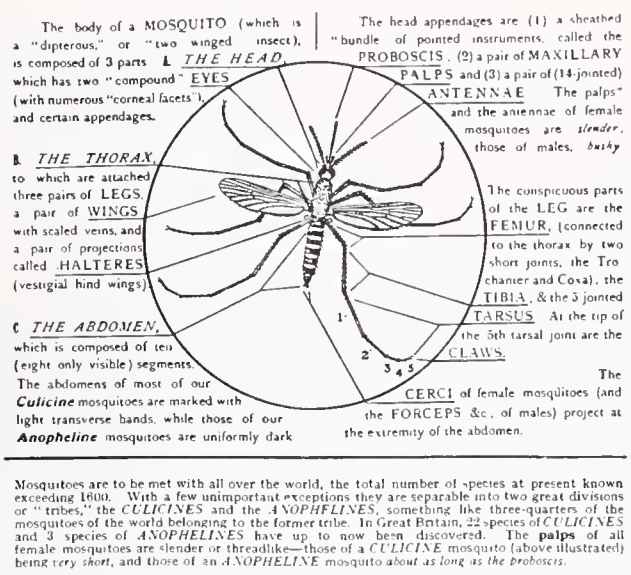

No. 1. How to Recognise a Mosquito.
The body of a MOSQUITO (which is a "dipterous," or "two winged insect), is composed of 3 parts
1. THE HEAD, which has two "compound" EYES (with numerous "corneal facets"), and certain appendages.
2. THE THORAX, to which are attached three pairs of LEGS, a pair of WINGS with scaled veins, and a pair of projections called HALTERES (vestigial hind wings).
3. THE ABDOMEN, which is composed of ten (eight only visible) segments. The abdomens of most of our Culicine mosquitoes are marked with light transverse bands, while those of our Anopheline mosquitoes are uniformly dark
The head appendages are (1) a sheathed "bundle of pointed instruments, called the PROBOSCIS, (2) a pair of MAXILLARY PALPS and (3) a pair of (14-jointed) ANTENNAE. The palps" and the antennae of female mosquitoes are slender, those of males, bushy
The conspicuous parts of the LEG are the FEMUR, (connected to the thorax by two short joints, the Trochanter and Coxa), the TIBIA, & the 5 jointed TARSUS. At the tip of the 5th tarsal joint are the CLAWS.
The CERCI of female mosquitoes (and the FORCEPS &c., of males) project at the extremity of the abdomen.
1
2
3 4 5
Mosquitoes are to be met with all over the world, the total number of species at present known exceeding 1600. With a few unimportant exceptions they are separable into two great divisions or "tribes," the CULICINES and the ANOPHELINES, something like three-quarters of the mosquitoes of the world belonging to the former tribe. In Great Britain, 22 species of CULICINES and 3 species of ANOPHELINES have up to now been discovered. The palps of all female mosquitoes are slender or threadlike—those of a CULICINE mosquito (above illustrated) being very short, and those of an ANOPHELINE mosquito about as long as the proboscis.
Copyright by the British Mosquito Control Institute, Hayling Island, Hants.
"Moscon" Mosquito Postcards. Price 1d. each, or 12 for 1/- Post Free.

Fig. 22 A postcard. An example of educational literature produced by the Institute

the removal and introduction of larvae into the jar. The incubator was marketed by A. Gallenkamp & Co. Limited, model A retailing for 8s.6d. and model B for 5s.6d. in the late 1920s (Fig. 27).

The 'Moscon' Macrograph was designed to permit an enlarged image of an object placed beneath a microscope to be projected onto a translucent horizontal screen. This was advertised as being of value in demonstrating, drawing and photography. The 'Moscon Macrograph' (Fig. 28) consisted of a projection screen attached to a vertically adjustable rod capable of being clamped to a table. A microscope and light source were placed on the floor and the image focussed on the screen. For drawing, a sheet of tracing paper was clipped over the screen while for photography a light-tight black cloth bag was attached to the frame and to the microscope tube and a plate-carrier substituted for the screen after the image was focussed. In 1928 the macrograph cost £5, complete with carrying case (the photographic accessories were an extra £1). It was manufactured by The London Instrument Company Limited of Cambridge and marketed by W. Watson and Sons Limited of 313 High Holborn, London, W.C.1.

The large number of titrations carried out in the studies of the salinity of the water colonised by *Aedes detritus* led to the design and construction of an automatic titrator. It is not known whether the titrator was marketed commercially or whether it was simply used in the routine work of the Institute. Basically it consisted of a burette from which silver nitrate solution could be dispensed automatically into measured volumes of sea water to which was added dilute potassium chromate as an indicator.

A photographic apparatus was first described by Jack Marshall in the *Bulletin of Entomological Research*, 1924. A more sophisticated form, which progressively evolved from the original, was featured in the same journal in 1930. It was with this apparatus, which is shown in Figure 25, that the photographs featured in his monograph were taken.

Fig. 23 The British Mosquito Control Institute demonstration museum

One of his photographs, of a female of the notorious *Aedes detritus*, is reproduced as Figure 29.

Papers and publications

A series of papers both in scientific journals and published by the Institute recorded some aspects of Jack Marshall's work. His writings began in 1922 with his account of 'Unofficial Mosquito Control in England' and culminating with the publication in July 1938 of *The British Mosquitoes*. A list of the publications of Jack Marshall is given in the appendix.

It must be said, however, that the supportive work of John Staley was invaluable. He assisted with the publications from the Institute and provided much of the experimental details on which the scientific papers were based and most of the morphological data for the book *The British Mosquitoes*. Jack Marshall and John Staley were a team and complemented one another with their abilities.

Jack Marshall also contributed articles and letters to many local and national newspapers and magazines including the *Bournemouth Echo*, *The Dorset Daily Echo*, *The Hampshire County Times*, *The Hampshire Telegraph and Post*, *The Morning Post*, *The Portsmouth Evening News*, *The West Sussex Gazette*, *Field*, *The Havant and Hayling Island Monthly* and *Pearson's Magazine*. Many of these served merely to report the activities of the Hayling Mosquito Control and the British Mosquito Control Institute, while others attempted to lobby public opinion and gain financial support for the schemes.

Fig. 24 The laboratory of the Institute

Contributions of Joan and Blanche

Jack's daughter, Joan, acted as a laboratory assistant on many occasions, carrying out many routine duties such as counting setae, analysing water samples for salinity and pH and taking levels in order to help construct ditches to drain the sea water pools which acted as larval habitats for *Aedes detritus*.

It was Jack's wish for Joan to follow in his footsteps and to become the first woman to gain a First in the Mechanical Science Tripos at Cambridge. Joan was educated at home and recalled that she had a total of 27 tutors and governesses. It was apparently very difficult for them to please Blanche. Joan was very fond of one of her governesses, Miss Griffiths. A row between Blanche and Miss Griffiths arose, and Joan pronounced that if Miss Griffiths went then she would never do lessons of any kind again. Miss Griffiths was indeed dismissed, a fortnight before Joan's sixteenth birthday and her formal scholastic education ended.

Joan made an observation while on honeymoon in Italy in 1927 following her marriage to Leslie Grant, the importance of which was not appreciated at the time. She sent Jack countless matchboxes full of mosquitoes, the specimens chloroformed and carefully packed in cotton wool as she had been instructed. They were accompanied with the news that they appeared to be *Culex pipiens* and that they were biting her. Jack was delighted to receive the tributes of affection, but refused to believe the observation. He wrote to Joan saying

> *C. pipiens* under no circumstances will bite human beings. It is presumed that they take their blood-meal from birds. You will doubtless remember, if you can spare the

Fig. 25 The photographic room of the Institute

time to think of such matters, that although Staley spent several days, stripped to the waist in a cage of *C. pipiens*, none of them could be persuaded to bite him. This is a scientific fact, so in future make your observations with more care.

Had he taken more notice of Joan he would have realised that she was referring to a form of *Culex pipiens* currently called *molestus*. It was not until two years later that the characteristics of this form were reported by continental workers, and not until 1935 in a paper entitled 'Exhibition of "Autogenous" Characteristics by a British Strain of *Culex pipiens* L.' co-authored with John Staley that he recognised that this form occurred in Britain.

The Institute was open to the public and, before her marriage, it was often Joan's task to show people around the building. She found a few of them to be genuinely interested, but felt that the majority were attracted by curiosity and the opportunity of seeing something for nothing. She remarked that there were always more visitors when it was cold and raining and that the holidaymakers soon learnt that there was a toilet available there! She used to bet with herself that in every group that she took round someone would say 'So the female of the species is always deadlier than the male'.

Blanche was a very efficient housekeeper and hostess and, with the aid of her staff,

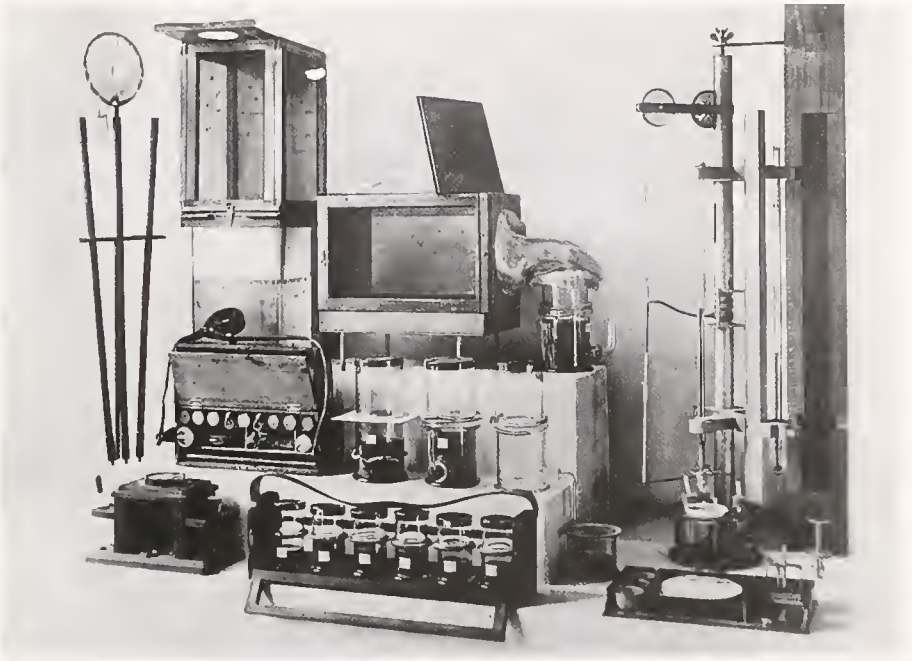


Fig. 26 Apparatus used in mosquito control work

looked after the many guests. Entertaining visitors to the Institute was a major task and this was Blanche's important contribution to the running of the Mosquito Institute.

THE FATE OF THE INSTITUTE

On 12 February 1927 the Institute was formally incorporated under the Companies Acts as a Limited Company, the word 'Limited' being omitted from the title by Licence of the Board of Trade. It was a 'Company limited by guarantee and not having a share capital' and having for its major aims:

(a) To further experimental, educational and research work in connection with mosquitoes and other noxious insects, particularly with a view to advising upon and undertaking the practical measures required to control them.

(b) To develop and carry on the experimental, educational and research work hitherto carried out at the Laboratory at 'Seacourt', under the direction of Mr John Frederick Marshall, and in the Island of Hayling generally and elsewhere.

(c) To provide at the aforesaid Laboratory or elsewhere an educational establishment where the habits of mosquitoes and other noxious insects may be studied with a view to their extermination.

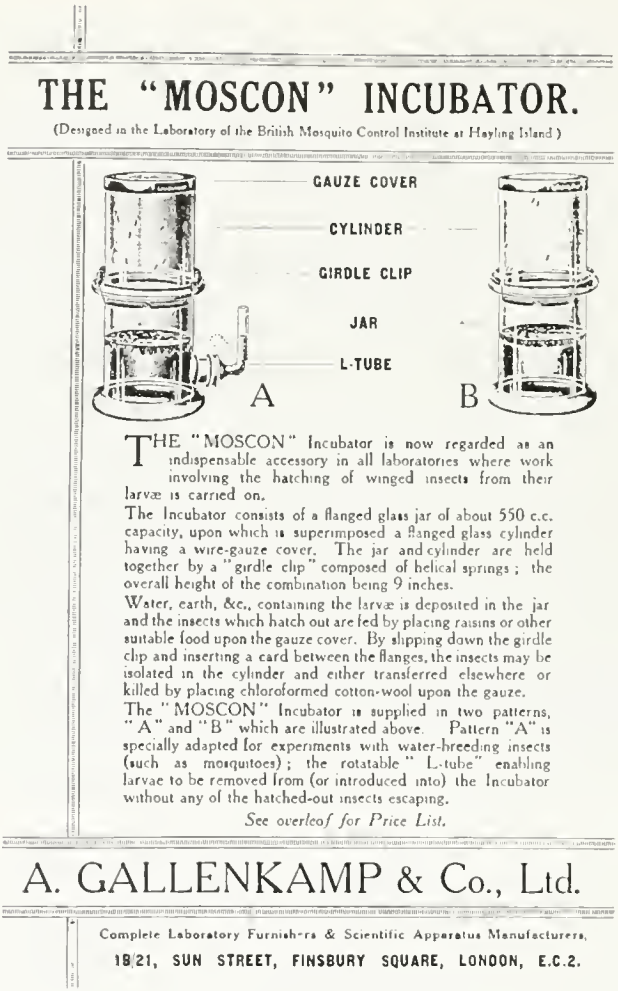
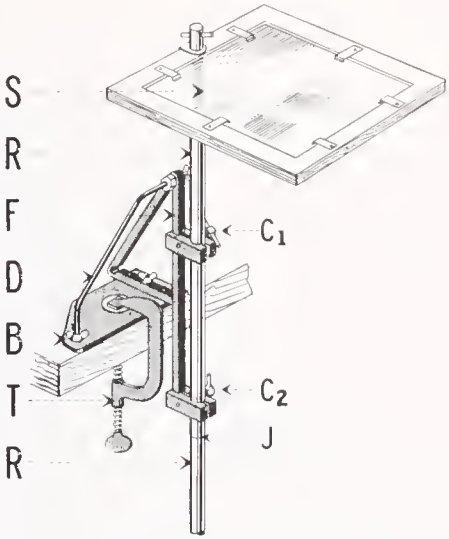

THE "MOSCON" INCUBATOR.
(Designed in the Laboratory of the British Mosquito Control Institute at Hayling Island.)
GAUZE COVER
CYLINDER
GIRDLE CLIP
JAR
L-TUBE
A
B
THE "MOSCON" Incubator is now regarded as an indispensable accessory in all laboratories where work involving the hatching of winged insects from their larvæ is carried on.
The Incubator consists of a flanged glass jar of about 550 c.c. capacity, upon which is superimposed a flanged glass cylinder having a wire-gauze cover. The jar and cylinder are held together by a "girdle clip" composed of helical springs; the overall height of the combination being 9 inches.
Water, earth, &c., containing the larvæ is deposited in the jar and the insects which hatch out are fed by placing raisins or other suitable food upon the gauze cover. By slipping down the girdle clip and inserting a card between the flanges, the insects may be isolated in the cylinder and either transferred elsewhere or killed by placing chloroformed cotton-wool upon the gauze.
The "MOSCON" Incubator is supplied in two patterns, "A" and "B" which are illustrated above. Pattern "A" is specially adapted for experiments with water-breeding insects (such as mosquitoes); the rotatable "L-tube" enabling larvae to be removed from (or introduced into) the Incubator without any of the hatched-out insects escaping.
See overleaf for Price List.
A. GALLENKAMP & Co., Ltd.
Complete Laboratory Furnishers & Scientific Apparatus Manufacturers,
19|21, SUN STREET, FINSBURY SQUARE, LONDON, E.C.2.

Fig. 27 The Moscon Incubator

(d) To provide an opportunity for those whose occupation entails living in countries infested by poisonous or poison-bearing insects, of studying the habits and life history of such insects and perfecting the system or systems found most effectual for their destruction.

(e) To collect, prepare, print, publish, issue and circulate and assist in the preparation, printing, publication, issue and circulation of lectures, books, journals, documents, pictures, prints, photographs and lantern slides relating to the work of the Institute and entomology, and to receive money in payment therefor.

II. COMPONENT PARTS OF THE MACROGRAPH.



The component parts of the Macrograph, which are illustrated above, are as follows —

S, the **PROJECTION SCREEN,** consisting of a wooden frame made to hold squares of ground or clear glass or photographic dark slides. This screen is attached to the upper extremity of

R, the **SLIDING ROD,** 27 inches long, which travels between the two **rod clamps** (C1, C2). These clamps form part of a light but *absolutely rigid* framework composed of three members, namely —

F, the **FIGURE-4 PIECE,** which carries the rod clamps,

D, the **DIAGONAL STAY**, and

B, the **BASE PLATE.**

T, the **TABLE CLAMP,** for fixing the base plate to any table, or other convenient support.

Fig. 28 The Moscon Macrograph

Management of the Institute

The management and control of the Institute was vested in Jack Marshall as its Director, and a Council consisting of between five and twenty-five members. The members of the first Council were: Major E. E. Austen; Dr Andrew Balfour; Professor F. Balfour-Browne; Dr Patrick A. Buxton; Sir James Crichton-Browne; Dr H. Eltringham; Sir Richard Gregory (Chairman); Mr L. W. North Hickley; Colonel S. P. James; Dr C. G. Lamb; Dr G. A. K. Marshall; Professor E. B. Poulton; Sir Ronald Ross; Professor Sir William Simpson; Dr C. M. Wenyon.

Membership and financial support

The Articles of Association provided for the election of life members, who contributed one payment of £10, and annual members, who subscribed £1.1s.0d. yearly. The liability

Fig. 29 A photograph of *Aedes detritus* taken by Jack Marshall

of each Member was limited to £1. It was hoped that a sufficient number of members would be obtained to provide an annual income which would enable the work of the Institute to be carried on efficiently without the need to subsidise the activities.

The subscriptions received to support the British Mosquito Control Institute were low from its inauguration and the Fifth Report of the Hayling Island Branch of the British Mosquito Control Institute (1927) contained the following statement:

> It is hoped therefore, that sufficient funds will be forthcoming to enable the local control work not only to be continued but also to be effectively carried on.

The Sixth Report, in contrast to the glossy booklets which preceded it, was a four-sided pamphlet and drew attention to the financial plight of the Hayling Island Branch. It restated that all subscriptions received were devoted to:

> the purpose of suppressing mosquitoes on Hayling Island only; three-fourths of all such subscriptions being dispersed in respect of materials and outside labour, and one-fourth in respect of laboratory and other indoor expenses incurred in connection with the work.

The amount subscribed in 1927 was also highlighted, £66.14s.0d compared with £84.19s.6d the previous year. This was the first year that there was a reduction in the amount received. The Report ends:

> It is hoped that the amount subscribed in respect of this year's work (1928) will show a very definite increase in comparison with that forthcoming last year: otherwise the Committee will be compelled to abandon the local control work of Hayling Island until adequate financial support can be obtained.

Although £82.1s.0d was received in 1928, this was still insufficient and the Report for that year (Seventh Report) noted that:

> during the years 1927 and 1928 . . . the suppression of the mosquito nuisance of Hayling Island has entailed a financial loss of over £30.0s.0d . . . before the end of this year (1929) the Committee will therefore have to decide whether the local mosquito work shall be curtailed to an extent limited by the amount of funds that can be guaranteed or whether it shall be suspended altogether.

Residents to decide

A public meeting was proposed in order to consider this issue before a final decision was taken. At this time an application was made to the Havant Council for a rate rebate for the British Mosquito Control Institute, but this was rejected. Following the refusal of the Havant Council to reduce the rates, Jack Marshall felt it necessary to publish an article in the *Hampshire Telegraph and Post*, dated 15 November 1929, stating that all money provided by the Havant Council, and from residents and visitors is for local control, and that this needed to be subsidised. He made it clear that:

> the British Mosquito Control Institute neither receives nor has received a grant of any description—Government or otherwise. Its annual income (which at present falls short of the minimum annual expenditure by some hundreds of pounds) is solely derived from: (a) the sale of educational material; (b) fees received in respect of advisory and educational work; and (c) from membership subscriptions and donations. Members, who may be either individual or collective (such as scientific societies, educational bodies, local authorities etc) subscribe one guinea annually; but although we are constantly providing information, identifying specimens etc for District Councils all over the country, very few of these bodies make even this small contribution. In the whole of Hampshire, for instance, only one local authority (namely, the Rural District Council of Winchester) supports our work in this way.

Eventually, however, on 23 January 1930 the Institute was certified by the Register of Friendly Societies as being entitled to exemption from payment of Rates under the provisions of the Scientific Societies Act, 1843.

Saved by the weather

The proposed public meeting did not take place as there were long periods of drought during the summer of 1929 and the majority of places in which stagnant water was usually found had dried up, thus removing the need for treatment and constant inspection. The financial position was also improved, as in 1929 the Havant Rural District Council increased its annual contribution from £75 to £100.

In 1930 and 1931 income exceeded expenditure by £42.0s.3d and £8.1s.11d respectively, although in 1931 the receipts from subscriptions were the lowest since 1923 (Table 1). Once again there were warnings in the Annual Report . . .

> owing to the very meagre financial support that is annually received, the work of inspecting and treating mosquito breeding places distributed over an area of more than six square miles has to be undertaken by a single inspector . . . The minimum running costs of the Institute exceed £500 a year, which is more than double the amount which has hitherto been received in any year in the form of membership subscriptions, donations, fees for advisory and experimental work, etc . . . Unless increased support can be obtained it is difficult to see how the work of the institute in general, and of the local mosquito control organization in particular can much longer be carried on.

The finances of the British Mosquito Control Institute itself and not just the Local Branch were now an issue. Jack was becoming increasingly pressurised financially and his dream of a well supported control programme was fading. As the international situation began to deteriorate, people started to economise and gave up subscribing to what Jack Marshall himself described at the time as 'small shows like the BMCI'.

Decision time once again

The eleventh, and final, Annual Report appertaining to 1932 and published in early 1933, differed from those which preceded it. Reports of mosquito biology and control activities were minimal and the Report was devoted to the finances of the scheme. Referring to the figures for income (Table 1), it was pointed out that the total sum received was about £160, apportioned as £120 for the outside work and £40 for the laboratory work. The latter was noted to be especially inadequate to cover wages, chemicals and other expenditure. The report continued

> . . . As far as can be seen, the early termination of its work is practically unavoidable . . . the time has come for the Havant Urban District Council (the Council name changed from Rural to Urban in 1932) and the residents of Hayling jointly to assume responsibility of deciding between two alternatives, namely:
>
> (1) whether the mosquito control work of Hayling shall be discontinued altogether, or
> (2) whether the said work shall be continued with adequate financial support.
>
> . . . It is estimated that a minimum annual sum of £300 is required for carrying on the work satisfactorily . . . This annual sum would enable the mosquito control work of Hayling to be continued independently of the British Mosquito Control Institute, in the (unfortunately likely) event of the said Institute ceasing to exist.

The Report ended by saying that the balance in hand would be used until exhausted, and then the work discontinued until the Havant Council and Hayling residents made their views known.

Table 1 Financial statement regarding the Hayling Island Branch of the British Mosquito Control Institute

	INCOME		
	(a) From Residents and visitors	(b) From Havant R.D. Council	(c) TOTAL
	£ s. d.	£ s. d.	£ s. d.
1921	32 0 6		32 0 6
1922	71 5 0		71 5 0
1923	60 18 6	75 0 0	135 18 6
1924	79 16 0	75 0 0	154 16 0
1925	80 15 0	75 0 0	155 15 0
1926	84 19 6	75 0 0	159 19 6
1927	66 14 0	75 0 0	141 14 0
1928	82 1 0	75 0 0	157 1 0
1929	82 3 0	100 0 0	182 3 0
1930	81 13 0	100 0 0	181 13 0
1931	65 12 0	100 0 0	165 12 0
1932	73 19 6	100 0 0	173 19 6

The Report of the Director presented at the Sixth Annual General Meeting on 14 December 1932 contained similar messages and interestingly presented the financial picture of income for 1931 and 1932, a breakdown of expenditure for 1931 and 1932 and the relationship between expenditure and income for 1927–32. The latter is shown in Table 2. It can be seen quite clearly that the annual deficits were considerable even though the level of expenditure was reducing. This, however, was being achieved by a reduction in activities and, in 1932, by a generous donation of £100 from a Mr and Mrs Arbuthnot who were willing contributors, having donated £25 in 1931.

Table 2 Financial statement regarding the British Mosquito Control Institute

	Relation of Expenditure to Income, 1927 to 1932 inclusive		
Year	Expenditure	Income	Deficit
	£ s. d.	£ s. d.	£ s. d
1927	1,076 19 4	204 13 6	872 5 10
1928	924 18 9	223 12 4	701 6 5
1929	817 7 10	188 4 4	629 3 6
1930	977 2 5	234 18 2	742 4 3
1931	768 13 5	183 9 2	585 4 3
1932	522 5 9	253 0 0	269 5 9

NOTE: The amounts due to the Trustees in respect of rent (£200 in each year) are not included in the above statement.

Jack Marshall further commented in the Report of the Director (1932):

> it has unfortunately become obvious that, if the work of the Institute is to be kept going, some fairly comprehensive scheme for directing attention to its difficulties will have to be devised. At the present time of financial depression, however, any attempts to obtain support for scientific work such as is carried on at the Institute would be foredoomed to failure . . .

Publicity for mosquito control

He very much hoped that the publication of his book *The British Mosquitoes* would promote interest in mosquitoes and the Institute. In 1932 he wrote:

> . . . In the previous Report reference was made to the fact that I had undertaken, at the invitation of the then Keeper of Entomology, in the British Museum (Natural History) Major E. E. Austen, D.S.O., the revision of Lang's 'Handbook of British Mosquitoes' . . . The work is now approaching completion and it is hoped that the new edition, when issued, will incidentally serve to direct attention to the work of the Institute . . . the exceptional facilities provided by the Institute for obtaining and examining quantities of specimens have enabled us to revise and greatly to supplement previous knowledge concerning the larval chaetotaxy and other diagnostic features of many British species . . . A number of illustrations prepared in the Institute will also be included.

Control activities suspended

The operations of 1933 were, to some extent, facilitated by the long period of drought with the result that there was a sufficient balance in hand to keep the work going until March 1934. After that date the mosquito control work on Hayling Island was suspended.

A cash injection

A new factor was introduced in 1934 when the Public Health Committee of Portsmouth Council invited the Institute to carry out a mosquito survey of the City and to implement anti-mosquito measures. These operations took six weeks during which time the mosquito problems in Hayling had returned. The local Committee therefore decided to resume the mosquito control work in Hayling on a temporary basis, pending the consideration by the Urban District Council of the issues involved. The Committee decided to finance the work during this 'emergency' period by utilising a portion of the funds subscribed by Hayling residents in 1933 (amounting in all to £103.16s.0d), which had been held in reserve. Havant and Portsmouth Councils soon became concerned at the level of the mosquito problem in their areas and asked the Institute to name a figure for recommencing the work. The suggestion was £600 per year, and the two Councils each promised £300. At the last moment, Portsmouth (where a 'lower the rates' campaign had commenced) reduced their promised contribution to £200. A sum of £500 was therefore available to finance local mosquito control and so the continuation of this aspect of the work was assured.

THE CULMINATION OF HIS CAREER AND THE DECLINE OF THE INSTITUTE

In 1936 Jack Marshall's work on mosquitoes and their control in Hayling Island and elsewhere in Britain was formally recognised when he was made a Commander of the Order of the British Empire (C.B.E.). The honour was announced in the *London Gazette* and *The Times* on 1 January 1936 as follows:

The King has been graciously pleased to give orders for the following promotions in, and appointments to the Most Excellent Order of the British Empire:

To be Commanders of the Civil Division of the said Most Excellent Order:

... John Frederick Marshall, Esq., Honorary Director of the British Mosquito Control Institute, Hayling Island ...

The British mosquitoes

Jack Marshall will for ever be remembered for his book *The British Mosquitoes*, the successor to Dr W. D. Lang's *Handbook of British Mosquitoes* (1920). The book was commissioned by the British Museum (Natural History) and published by them in 1938.

It established Jack Marshall as the number one authority on British mosquitoes, and remains the most complete and authoritative work on the subject. In his book he described nine species not mentioned in Lang's book, and filled numerous gaps in the knowledge of the morphology, life cycles and habitats of many other species. The inclusion in this book and other publications of detailed photographs of mosquitoes

Just Published

Printed by Order of the Trustees of the British Museum (Natural History), London.

THE BRITISH MOSQUITOES

BY

JOHN F. MARSHALL, C.B.E., M.A., F.R.E.S.
Director of the British Mosquito Control Institute, Hayling Island

"The British Mosquitoes," *a book of 341 pages, is illustrated by 20 full-page plates (of which 9 are coloured) and 172 text figures. It contains a chapter on Mosquito Control in Britain, and a Bibliography of over 200 references*

This book may be obtained, post free, from
THE BRITISH MOSQUITO CONTROL INSTITUTE,
HAYLING ISLAND, HANTS

Price £1 0 0

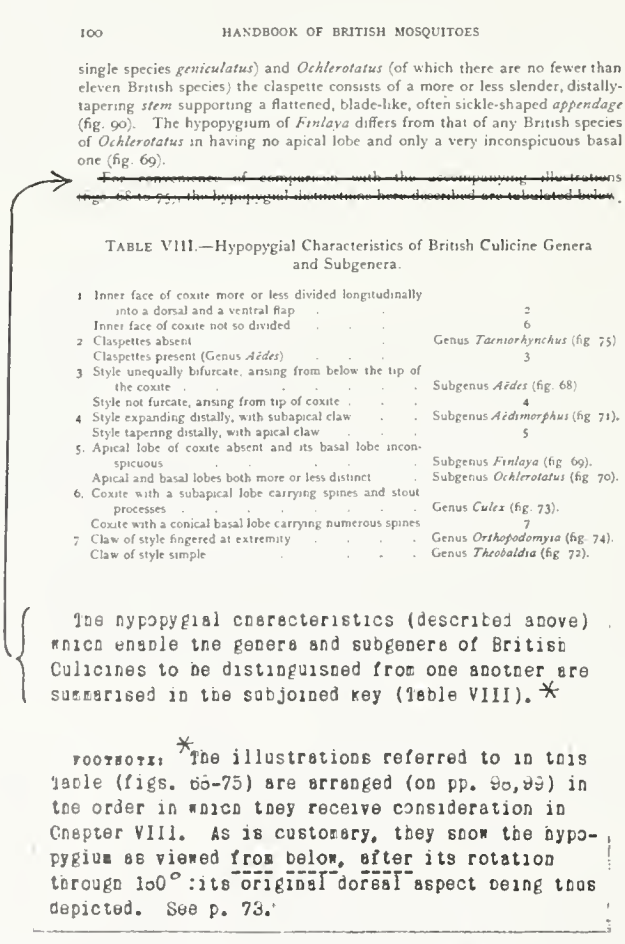
For Table of Contents—See Overleaf ☛

Fig. 30 Cover of pamphlet announcing *The British Mosquitoes*

demonstrated his skill at close-up photography, the apparatus for which he invented himself. That he was an extremely enthusiastic, devoted and patient man is reflected in the quality of the book.

The cover page of a pamphlet which announced the publication of the book is shown in Figure 30, and emphasised that it contained a chapter on Mosquito Control in Britain, a subject which was always uppermost in Jack Marshall's mind. Only one edition of this text was produced and only 1000 copies were printed.

Although it began as a straightforward revision of Lang's Handbook it ended as a greatly enlarged tome with an abundance of new information. A page from the proofs (Fig. 31) shows that the running title at the top of the page was the same as for Lang's book. It was only shortly before its publication that the final title was selected. There are many amendments on the page proofs, indicating the level of care and commitment shown by the author.



100 HANDBOOK OF BRITISH MOSQUITOES

single species *geniculatus*) and *Ochlerotatus* (of which there are no fewer than eleven British species) the claspette consists of a more or less slender, distally-tapering *stem* supporting a flattened, blade-like, often sickle-shaped *appendage* (fig. 90). The hypopygium of *Finlaya* differs from that of any British species of *Ochlerotatus* in having no apical lobe and only a very inconspicuous basal one (fig. 69).

~~For convenience of comparison with the accompanying illustrations (figs. 68 to 75), the hypopygial instructions here described are tabulated below.~~

TABLE VIII.—Hypopygial Characteristics of British Culicine Genera and Subgenera.

1	Inner face of coxite more or less divided longitudinally into a dorsal and a ventral flap	2
	Inner face of coxite not so divided	6
2	Claspettes absent	Genus *Taeniorhynchus* (fig. 75)
	Claspettes present (Genus *Aëdes*)	3
3	Style unequally bifurcate, arising from below the tip of the coxite	Subgenus *Aëdes* (fig. 68)
	Style not furcate, arising from tip of coxite	4
4	Style expanding distally, with subapical claw	Subgenus *Aëdimorphus* (fig. 71).
	Style tapering distally, with apical claw	5
5.	Apical lobe of coxite absent and its basal lobe inconspicuous	Subgenus *Finlaya* (fig. 69).
	Apical and basal lobes both more or less distinct	Subgenus *Ochlerotatus* (fig. 70).
6.	Coxite with a subapical lobe carrying spines and stout processes	Genus *Culex* (fig. 73).
	Coxite with a conical basal lobe carrying numerous spines	7
7	Claw of style fingered at extremity	Genus *Orthopodomyia* (fig. 74).
	Claw of style simple	Genus *Theobaldia* (fig. 72).

The hypopygial characteristics (described above) which enable the genera and subgenera of British Culicines to be distinguished from one another are summarised in the subjoined key (Table VIII).*

FOOTNOTE: * The illustrations referred to in this Table (figs. 68-75) are arranged (on pp. 98,99) in the order in which they receive consideration in Chapter VIII. As is customary, they show the hypopygium as viewed from below, after its rotation through 180°: its original dorsal aspect being thus depicted. See p. 73.

Fig. 31 Page from the proofs of *The British Mosquitoes*

The Second World War

The local grants amounting to £500 per year were still being provided in 1939 and just about covered the costs of the Portsmouth and Hayling operations. At this time it was decided finally to stop the non-local work and to maintain the local control work for as long as possible.

Jack hoped that when the war was eventually over a well-organised appeal to the public for financial support would be organised. Meanwhile he suspended the receipt of membership subscriptions and returned any recently received subscriptions.

As the Institute was incorporated by Board of Trade licence, there was a legal obligation to call at least one General Meeting in each year. The 1939 meeting, the thirteenth, was held at his solicitor's office on 29 December. Jack felt at the end of 1939 that:

> the affairs of the BMCI are now of such utterly trivial interest in these appalling times that I feel that it is almost indecent to refer to them.

In July 1939 the Marshalls evacuated themselves to Bournemouth. In a letter dated 24 September 1939 written from their new address of 'Beechcroft', 3 Boscombe Cliff Road, Jack Marshall wrote:

> I have, for financial reasons been trying to sell it ('Seacourt') for over four years; but, owing to the general depression, I found it impossible to do so. At the end of the present year, an unfortunately large slice of my income automatically disappears, owing to the expiration of some London leaseholds. I therefore had to decide, some months ago, to warehouse our furniture &c . . . and to empty the house in order to save rates and various other expenses.

John Staley remained in Hayling and continued to run the Institute alone. His personal research work was soon discontinued as the facilities were no longer available because the local fuel office would not issue permits for the purchase of fuel to heat the Institute. John Staley completed some of the experiments which were in progress in a paraffin-heated outhouse, but soon devoted all of his time to the practical issues of mosquito control: the maintenance of the sluices and the network of ditches established in the low lying areas, regular inspection of potential breeding sites and the destruction of any larvae and pupae found.

Jack was not proposing to sell the Institute as he hoped that it might prove possible to resume all aspects of its work after the War. He felt that as long as he continued to receive £300 a year from Havant and £200 a year from Portsmouth, for the local work in those respective areas, it would not be difficult to keep that part of the Institute's work going. The joint contribution just about paid the wages of John Staley and two field workers and other expenses incurred. However, he thought that he could not recommence the non-local activities of the Institute until his plans were more settled. He considered it most likely that he would eventually either add a residential extension to the Institute or else build a small house on the same piece of land. He was well aware that before he could do this he must dispose of 'Seacourt'.

Initially Jack and Blanche intended to rent the house in Bournemouth for only six months, but they kept it on until at least March 1940. Their original plan was to divide their time between Bournemouth and the small cottage at Hayling, but this proved to be impossible primarily because of the shortage of petrol. Later they moved to 'Wayside', 47 London Road, Cheltenham where they were living at the end of the War. During all this time they also had a flat in Chelsea at 49 Meriden Court, Manor Street, SW3.

'Seacourt' was used as a convalescence home for naval officers from about 1940 onwards. Then from 7 June 1943 to 15 January 1946 it was requisitioned by the Admiralty as HMS *Dragonfly*. It was the Royal Naval Combined Operations Base on Hayling Island and was probably used mainly for landing craft training.

WAYSIDE. May 20, 1945.

Dear Staley,

I have just opened the April number of The Sanitarian (which has been lying here unopened for about a fortnight), and am glad to note that it contains the following paragraph in the Section headed "REPORTS OF MEETINGS".

(on page 150):-

SUSSEX COUNTY. A meeting of the Branch was held at Chichester on March 28rd, 1945. After the members' private meeting, Mr. J. Staley, of the British Mosquito Control Institute, addressed an open meeting, at which members of local authorities were present, on "British Mosquitoes and Practical Methods of Control", illustrating his address by means of a large number of slides and diagrams. Many questions were put to Mr. Staley at the conclusion of his paper and a lively discussion ensued. A hearty vote of thanks was accorded to Mr. Staley for his interesting address.

. . . . . .

Many thanks for yours of the 17th , enclosing the revised petty cash account. Let me know in plenty of time when you would like a further cheque for petty cash. I note that you are going to Dr. Hanwin on Wednesday next, the 23rd.

Yours sincerely,

J.F. Marshall

P.S. I should be glad if you post to me, some time, a book of mine written by the Marquess of Tavistock about (of course!) parrots. I can't remember the exact title. It has coloured plates, I think. I bought it, I think, in 1939. There is no hurry.

JFM.

Fig. 32 One of the last letters concerning the Institute written by Jack Marshall

Away from the Institute Jack Marshall continued his interest in mosquitoes (Fig. 32) and, ably assisted by John Staley and Duncan Wilson, advised the National Fire Service on the problems of mosquito colonisation of static water tanks used for fire fighting. This activity, which was centred mainly on the Portsmouth area, continued until the end of the War and resulted in several publications and the discovery of the exotic mosquito, *Culex modestus*.

During the War years a rift occurred between Jack and his daughter, Joan, that was never to be resolved. Strangely enough it was caused by a novel. It was entitled *Miss Lucifer*, and was written by Ronald Fraser and published by Jonathan Cape in 1939.

Ronald Fraser was a friend of Joan, and the novel had as its main characters a Professor and Mrs Wainwright, so clearly depicting Jack and Blanche Marshall, and Auriol who was so obviously Joan. Jack took such exception to the book that he did not speak to Joan, who he saw as the instigator of the story, for the rest of his life. There were many passages in the book that portrayed Jack and Blanche, the characters being changed only slightly and certainly not sufficiently to prevent their easy recognition. An example will illustrate this quite clearly:

> . . . But the house that Professor and Mrs Wainwright had built for themselves among the woods was said by the mischievous, and most people are mischievous, to be the ugliest and most inconvenient in England. This arose because Professor Wainwright always did what he so amiably thought reasonable. If he got soaked one wet day walking from the house to the squash court he decided that it would be reasonable to put up a covered way, which he did forthwith regardless of all other considerations, including cost. Not that the original nucleus of the house had any shapeliness to be ruined by fortuitous accretions . . .

Joan did not like 'Seacourt' and apparently always made this very clear. She said that Jack had no taste for architecture. Also, of course, he did build an extension to the house to join it to the tennis court after having suffered a cold when he got wet.

Just in case there was uncertainty as to the basis of the characters they were more clearly identified many times, for example:

> . . . Moreover, he [Professor Wainwright] had a passion for ball games and at sixty played squash like a champion . . . [squash substituted for tennis.]
>
> . . . Mrs Wainwright . . . had been a noted beauty . . . Great men still came to see her, for she had psychic powers . . . [This is a precise description of Blanche.]
>
> . . . 'Mother', she [Auriol] said, 'if you send Miss Gainsborough away, I'm afraid I might have to decline to do any more lessons . . .' [Joan ended her formal education in her teens when her governess, Miss Griffiths, was dismissed.]

The post war years

After the War, Jack and Blanche moved back to Hayling Island and in 1946 they sold 'Seacourt' to a builder who converted it into three houses and sold the beach to the Council. Jack Marshall was to have no more to do with the Institute as a mosquito control organisation, and indeed ended his long association with mosquitoes, his last publication which resulted from the discovery of *Culex modestus* appearing in 1945. The Institute was not to function again. At this time Jack and Blanche moved into the Institute to live and renamed it 'Somerleyton' after their first house in Croydon. After two strokes and bouts of severe depression, Jack Marshall's physical and mental health were now failing and he was soon to enter a nursing home in Portsmouth where he died on 5 December 1949, leaving Blanche to continue to live in the Institute with a companion, Mary Bird.

The Council assumes responsibility

In 1948 the then Havant and Waterlooville Urban District Council Health Department officially undertook the responsibility for the control and financing of the control unit. Portsmouth Council retained the services of the new unit by subscribing to the Havant

rating fund, but Gosport withdrew and introduced its own mosquito control department. The new unit had the use of the laboratory in the Institute which was now the home of the Marshalls. The headquarters of the mosquito control operation remained at the Institute until Blanche Marshall died in 1964 and the building was sold. From then on the operation was run from the Council Offices.

John Staley worked in the laboratory in the employ of the Council until he was nearly 74. Then on 1 April 1958 the control activities were taken over by Ronald Francis who was John Staley's son-in-law. Mr Francis continued as the Mosquito Control Officer, assisted by two mosquito control operators for 20 years, until in 1979 the Council temporarily discontinued the service on financial grounds and replaced it by a programme of monitoring. However, following the pressure from local residents and a return of the mosquito problem, finance was once again made available in 1983, but only for insecticide treatment and not for ditching. The control measures are still carried out (now administered by the Havant Borough Council) although because of the building, infilling and drainage that has now taken place on the Island the problem is nothing like as acute as in Jack Marshall's day.

John Staley remained actively interested in entomology and other aspects of natural history for the rest of his long life, which ended on 29 May 1983. Had he lived just five weeks more he would, on 2 July, have celebrated his ninety-ninth birthday.

Sale of the Institute

After Jack's death Blanche lived on an annuity provided by the sale of 'Seacourt'. She died in the autumn of 1964 aged 92. At the time of her death she was still residing in the Institute.

On 14 May 1965 the British Mosquito Control Institute building was sold at auction. It is now a fine private house known simply as 'Somerleyton', 190 Seafront Road, Hayling Island. A plot of land adjoining the Institute was auctioned separately as a building site. Prior to this, on 3 February 1965, the contents of the building were auctioned. Among the items of interest were many pieces of antique furniture, oil paintings, silverware and jewellery, most of which were moved from 'Seacourt' when the large house was sold immediately after the War. Very little was auctioned which originated from the days of the Institute. The only recognisable items were a number of science reference books. However, an interesting inclusion in the auctioneer's catalogue were lots 239 to 242. These were as follows:

239	Glazed pottery cat of character, with glass eyes, 14" (green with black spots)
240	Similar lot 14" (turquoise)
241	Similar lot 14" (black)
242	Two smaller cats by Mosanic 8½" (one dark green one light green with blue spots).

These items were the remains of an extensive collection of over 80 china cats which were arranged on a shelf around his study. The collection started when Jack was at Cambridge and a friend gave him a pair of china cats as a present. Jack was a very polite and proper man, and although he did not really like them he thanked his friend for the present and put the ornaments on a shelf out of the way. After this everyone thought that he liked china cats and brought them as presents to add to his collection. In his later years he said 'I've had these horrible cats staring at me all of my life'.

The real tennis court still remains and is part of a sports complex. It is of interest that in a letter dated February 1939, Jack Marshall wrote 'I still have some hope that when

world conditions improve (if they ever do!) this place might be turned into a club, and the tennis court thereby preserved'. So his wish was finally granted.

The current situation

Mr Stephen Dear, the Principal Environmental Health Officer at Havant Borough Council, and Mr Clem Ramsdale who prepared a report following a survey of the mosquitoes of Hayling in 1983, both state that the problem species are still *Aedes detritus* and *Aedes caspius*. Control is now accomplished using the microbial insecticide *Bacillus thuringiensis* var. *israelensis* (B.t.i.) at a concentration of approximately 2 litres/hectare at about fortnightly intervals. If treatment is stopped the biting problems recur after about 2–3 weeks depending on rainfall and the extent of ditching. Many of the present day breeding sites are on private land and are increasing due to the breaching of banks and the non-maintenance of ditches and sluices.

ON REFLECTION

John Frederick Marshall was a rich and well educated man from an upper middle class family. He was therefore not only able and confident, but also had influential friends and was in a position to finance his interests. It is against this backdrop that his work, firstly to control and later to study British mosquitoes, must be viewed.

Given the education and opportunities that his upbringing provided, it was no surprise that he emerged as the leader and main organiser of the Control that began in the 1920s. His many letters to local newspapers, and his willingness and ability to give lectures provided an initial impetus to the scheme that most people could not have given. Add to this the fact that he did not have to seek employment and the financial backing that he could provide, the ingredients were there for success. Without Jack Marshall it is extremely unlikely that the control programme would ever have begun, and the scientific world would never have had the benefit of his many publications especially the monograph, *The British Mosquitoes*, which remains an unsurpassed work on the mosquitoes of this country.

His early life had taught him to be a perfectionist. He considered that if a task was to be performed then it had to be done properly. Two prime examples of this are that he played real tennis and so he built his own court, and he studied mosquitoes and so he required a purpose-built Institute.

Communication was one of Jack's strong points, and it was necessary for him to write numerous letters to gain support for the venture, to publicize the scheme, to answer queries and advise on control and to generate income. He was, in fact, a prolific letter writer and whenever possible he answered his letters the same day, usually typed, although sometimes in his most beautiful handwriting. He would constantly amend drafts and considered it unthinkable to let a text go to the printer with ink corrections. A page which had even a comma altered meant that the page required to be retyped.

Although strictly an amateur, Jack Marshall was a first rate entomologist. He mixed with scientists from universities and the Ministry of Health, and was a member of many learned societies, including the Entomological Society of Hampshire and the South of England, the Royal Society of Tropical Medicine and Hygiene, the Royal Entomological Society of London, the Linnaean Society and the Zoological Society of London.

He was fortunate to have the services of John Staley, and the team of an educated,

single minded entrepreneur and a dedicated, hardworking biologist was formidable. Between them they made an enormous contribution to the study of mosquitoes in this country and laid the foundations for further studies in Europe and elsewhere.

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We wish to express our sincere thanks to the following for their assistance in the preparation of this article:

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Information has also been obtained from the following books and articles in addition to those listed in the Appendix:

Corina, M. 1978. *Fine Silks and Oak Counters: Debenhams, 1778–1978.* 200 pp Hutchinson, Benham. London.

Fraser, R. 1939. *Miss Lucifer.* 316 pp Jonathan Cape. London.

Grant, J. 1985. *Far Memory.* (First published as *Time Out of Mind* by A. Barker. 1956.) 288 pp Ariel Press. Ohio.

Noel, E. B. & Clark, J. O. M. 1924. *A History of Tennis.* xv + 281 pp Oxford University Press.

Settle, A. (undated). *A Family of Shops.* 36 pp Marshall and Snelgrove. London.

Shute, P. G. 1949. J. F. Marshall, C.B.E. Obituary. *Nature* **165**. 16.

Stokely, D. 1978. Britain's Mosquito Control Centre. *Hampshire.* March: pp 37, 40.

Thomas F. G. S. 1978. *King holds Hayling.* Pelham.

President's Remarks in *Proceedings of the Royal Entomological Society* (C) **14**. 65.

Who Was Who Vol. 4 1941–1950. Adam & Charles Black. Fifth Edition, 1980.

APPENDIX

Major publications by John Frederick Marshall, John Staley and from the Hayling Mosquito Control and the British Mosquito Control Institute.

Marshall, J. F.

1922. 'Unofficial' mosquito control in England. *Science Progress* **16**: 462–68.

1922. The destruction of mosquito larvae in salt or brackish water. *Nature*, London **109**: 746–47.

1923. The coastal mosquito nuisance. *British Medical Journal* June 9: 997.

1924. An improved form of apparatus for 'low power' insect photomicrography. *Bulletin of Entomological Research* **15**: 49–50.

1925. *Theobaldia annulata* at South Hayling. *Entomologist* **58**: 65.
1925. Coastal mosquitoes and their control. *English Mechanics* September 4: 103–4.
1925. Larvicides in mosquito control. *Lancet* **208**: 1380–81.
1926. *Theobaldia annulata* var. *subochrea* with aberrant wing-venation. *Entomologist* **59**: 276.
1926. Address on mosquito control organisation. *The Sanitary Journal* **32**: 71–76.
1930. The organisation of mosquito control work. *Transactions of the South-Eastern Union of Scientific Societies* **1930**: 10–23.
1930. A new form of apparatus for photographing insects. *Bulletin of Entomological Research* **21**: 139–40.
1931. Artificial breeding places for arboreal mosquitoes. *Entomologist* **64**: 283.
1932. Artificial breeding places for arboreal mosquitoes. *Entomologist* **65**: 68.
1932. The mosquito and malaria. *The Mosquito* **2**: 29–33.
1933. An inland record of *Aedes detritus*, Haliday (Diptera, Culicidae). *Nature*, London **132**: 135.
1938. *The British Mosquitoes*. xi + 341 pp + XX plates. British Museum (Natural History). London.
1942. Mosquitoes in Britain. *Biology* **8**: 21–26.
1942. Mosquito-breeding in static water supplies. *Nature*, London **149**: 568.
1945. Records of *Culex (Barraudius) modestus* (Ficalbi) obtained in the south of England. *Nature*, London, **156**: 172.

Marshall, J. F. & Attwooll, A. W.

1941. The mosquito-breeding possibilities of static water supplies. Introductory notes. Duplicated document issued by The Limmer and Trinidad Lake Asphalt Co. Ltd. 7 pages.

Marshall, J. F. & Staley, J.

1929. The graphical representation of instar records in a regional mosquito survey. *Bulletin of Entomological Research* **20**: 195–98.
1929. A newly observed reaction of certain species of mosquitoes to the bites of larval hydrachnids. Preliminary contribution. *Parasitology* **21**: 158–60.
1930. An English record of *Culex* (*Neoculex*) *apicalis* Adams (Diptera, Culicidae). *Entomologist* **63**: 259.
1931. Stereoscopic photomicrographs of Oligocene fossil insects from the Isle of Wight. *Proceedings of the Entomological Society of London* **6**: 38–40.
1932. On the distribution of air in the oesophageal diverticula and intestine of mosquitoes; its relation to emergence, feeding and hypopygial rotation. *Parasitology* **24**: 368–81.
1932. Influence of light on the gorging of *Culex pipiens* L. *Nature*, London **130**: 506–7.
1933. Variations in the surface pattern of eggs of *Anopheles maculipennis* (Diptera, Culicidae) obtained in the south of England. *Stylops* **2**: 238–40.
1933. *Theobaldia (Culicella) litorea* (Shute), N.Sp. (Diptera, Culicidae). *Parasitology* **25**: 119–26.
1933. A new British record of *Orthopodomyia pulchripalpis*, Rondani (Diptera, Culicidae). *Nature*, London **131**: 435.

1935. Some adult and larval characteristics of a British 'Autogenous' strain of *Culex pipiens* L. *Parasitology* **27**: 501–6.
1935. Generic and subgeneric differences in the mouth-parts of male mosquitoes. *Bulletin of Entomological Research* **26**: 531–32.
1935. Exhibition of 'Autogenous' characteristics by a British strain of *Culex pipiens* L. (Diptera, Culicidae). *Nature*, London **135**: 34.
1935. 'Autogenous' strains of '*Culex pipiens*' (Diptera, Culicidae). *Nature*, London **136**: 641.
1936. Exhibition of 'Autogenous' and 'Stenogamous' characteristics by *Theobaldia subochrea*, Edwards (Diptera, Culicidae). *Nature*, London **137**: 580.
1937. Some notes regarding the morphological and biological differentiation of *Culex pipiens* Linnaeus and *Culex molestus* Forskal (Diptera, Culicidae). *Proceedings of the Royal Entomological Society of London* (A) **12**: 17–26.

Staley, J.

1933. Larval distinctions between *Anopheles algeriensis* Theobald and *Anopheles claviger (bifurcatus)* Meigen (Dipt., Culicidae). *Journal of the Entomological Society of the South of England* **1**: 85–86.
1940. A species of mosquito (Diptera, Culicidae) new to Britain. *Nature*, London **146**: 368.

British Mosquito Control Institute Hayling Island, Hampshire
Report of the Director. Presented at the Annual General Meeting

First 1927 (March) (Not seen).
Second 1928 (18 June) 10 pages.
The Third A.G.M. took place on 12 September 1929 but only statutory business was transacted and no Report was produced.
Fourth 1930 (9 December) 16 pages.
The Fifth A.G.M. took place on 7 March 1932 but no Report was presented (by default, no meeting was held in 1931).
Sixth 1932 (14 December) 28 pages duplicated. This appears to be the last Report made.

Report of the Council. Presented at the Annual General Meeting

Second 1928 (18 June) 3 pages.

Reports of the Proceedings of the Hayling Mosquito Control

Report of the proceedings of The Hayling Mosquito Control from September 1920 to June 1922 12 pages.
Second Report . . . (June 1922 to May 1923) 4 pages.
Third Report . . . (May 1923 to May 1924) 12 pages.
Fourth Report . . . (1 May 1924 to 1 May 1925) 8 pages.
Interim Report, August 1926. 4 pages.
Fifth Report . . . Henceforth to be known as The Hayling Island Branch of The British Mosquito Control Institute. (1 May 1925 to 1 January 1927) 16 pages.
Sixth Report of the Proceedings of The Hayling Island Branch of The British Mosquito Control Institute (1 January 1927 to 1 January 1928) 4 pages.
Seventh Report . . . (1 January 1928 to 1 January 1929) 12 pages.
Eighth Report . . . (1 January 1929 to 1 January 1930) 8 pages.
Ninth Report . . . (1 January 1930 to 1 January 1931) 4 pages.
Tenth Report . . . (1 January 1931 to 1 January 1932) 8 pages.

Eleventh Report . . . (1 January 1932 to 1 January 1933) 8 pages.
(There were only eleven Reports)

CIRCULARS

No. 1 The Mosquito Nuisance (poster) (undated but 1921).
No. 1a and 1b Letter to accompany Circular No. 1. 1 page. 1a and 1b appear to be identical (undated but 1921).
No. 3 The common mosquitoes of Hayling. In verse and in prose. 1 page (duplicated) (undated but 1921 or 1922).
No. 4 The destruction of mosquito larvae in salt or brackish water. 4 pages (1922).
No. 7 The facts about the salt-water mosquito *Ochlerotatus detritus*. 1 page (undated but 1922 or 1923).
No. 8 Entomological section. 1 page (information regarding a new section of Hayling Mosquito Control) (undated but presumably 1923).
No. 10 Letter. To people who had promised to collaborate in a mosquito survey in area with corners Salisbury, Crawley, Bournemouth and Brighton, with instructions on collection and preservation. 1 page (1923).
No. 11 Classification of the known British mosquitoes. 1 page (1924).
No. 12? The organization and operation of a mosquito control. 6 pages (undated).
No. 13 Letter. Similar to No. 10 but printed and with photographs on reverse. 2 pages (1924).
No. 14 Hayling Mosquito Control. Letter to seek opinions of effectiveness of control programme. 2 pages (1924).
No. 14a Supplement to 14; summary of replies regarding Circular No. 14. 1 page (1925).
No. 15? Coastal mosquitoes and their control. 19 pages (1925).
No. 16. Some practical notes on mosquito control. 4 pages. (1925).
No. 17? Principles and practice of mosquito control. viii + 39 pages (1927).
No. 18 Short courses of instruction in mosquito control work. 1 page (undated but 1928).
No. 19? Short courses of instruction in mosquito control work. 16 pages (approx. 6″ × 4″) (1928).
No. 21 The British Mosquito Control Institute. 4 pages (1928).
No. 21a. As Circular 21 but with statement about BMCI and membership. 4 pages (1930).
No. 22 Mosquitoes and their larvae. How to recognise and collect them. 12 pages (undated but 1930).
No. 22a Notes regarding methods of 'controlling' mosquitoes. 1 page (undated but most likely 1930).
No. 23? The organization of mosquito control work. 10 pages (1930).
No. 24 A mosquito summary. 8 pages (undated but 1932).
No. 24a Supplement to 'A mosquito summary'. A list of the mosquitoes of Great Britain. 1 page (undated but most likely 1932).
No. 25? A list of the mosquitoes of Great Britain (revised November 1933). 1 page (undated but most likely 1933).
No. 26 A short illustrated description of The British Mosquito Control Institute (Hayling Island). 8 pages + photographs approx. 3″ × 4″ (1934).
No. 30 A revised list of the British mosquitoes, with some notes regarding those discovered in England since the year 1918. 4 pages. (1938).
No. 32 Mosquitoes in Britain. Reprinted from Biology **8** (1942) with 7 additional illustrations. 10 pages (1942).
No. 33 The control of tank-breeding mosquitoes in the city of Portsmouth. 4 pages (1943).

No. 34 The morphology and biology of *Culex molestus*: observational notes for investigators. iv + 15 pages (1944).

Reports

A report on the anti-mosquito operations carried out by the Hayling Mosquito Control during the period October 1922 to February 1924 inclusive. 19 pages.

Mosquito control report concerning an inspection carried out at Weymouth and Melcombe Regis (Dorset) on 17 & 18 April 1928. 6 pages.

An account of the mosquito control operations carried out by The British Mosquito Control Institute (Hayling Island) in the Drayton Marshes and Farlington Marshes during the period 26 March to 8 May 1934. 15 pages.

West Sussex mosquito survey. July and August 1936. 11 pages.

Report of a Radio Broadcast

Fighting the mosquito. *The Sanitary Journal* **35**, 224–25 (1930).

Bull. Br. Mus. nat. Hist. (Hist. Ser.) 19(1): 51–160 Issued 27 June 1991

A short history of the Museum of the Geological Society of London, 1807–1911, with a catalogue of the British and Irish accessions, and notes on surviving collections

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CONTENTS

Introduction 52
History of the Museum of the Geological Society 52
The first few years 52
The Webster era 54
William Lonsdale, Curator 56
From Lonsdale to Horner 57
Decay and dispersal 59
The fate of the collections 59
At the Geological Survey and Museum 60
At the British Museum (Natural History) 60
Editorial conventions 61
Notes 62
Catalogue of donors to the Museum 64
Acknowledgements 150
References 150

SYNOPSIS The founders of the Geological Society emphasised the importance of gathering facts, in order to build up a mineral history of Britain and, in due course, to serve as a foundation for theory. Many early members sent specimens with their letters and descriptive papers, and these were gathered together to form a museum. The museum was seen as a research tool for experienced geologists, and an educational resource for the rest. It grew in size as donations poured in from all corners of the world. A series of curators, helped or more often hindered by members of the Society's Museum Committees, attempted to impose order on the resulting chaos. But by the end of the nineteenth century, the Museum was a nuisance, taking time, money and space away from the Library, which had become, after the *Quarterly Journal*, the Society's priority.

In 1911 the Museum was divided between the Geological Survey Museum and British Museum (Natural History). Recent curatorial work in the Department of Mineralogy of the latter institution has led to the re-identification of many of the surviving British specimens.

INTRODUCTION

The impetus which led to this paper was the transfer, in April 1985, of a collection of several thousand British and Irish rock specimens from the British Geological Survey, then in the process of moving out of London, to the British Museum (Natural History), now known as The Natural History Museum. This collection had been presented to the Geological Survey by the Geological Society of London in 1911, along with the large collection of British and Irish fossils which are still in their care at the Survey's headquarters in Keyworth, Nottinghamshire. While the fossils had been a focus of palaeontological research and curation for over seventy years, the rocks and minerals had received little attention. Curatorial work by one of us (DTM) led to an appreciation of the size and significance of the Geological Society's Museum, while JCT, as Honorary Archivist to the Society, was able to augment the specimens with a range of documentary evidence. The decision to compile a list of British and Irish donations, indicating the existence of surviving specimens, grew out of the research involved in curating the collection. It is hoped that the list will be useful both to historians and geologists, in biographical, taxonomic and other researches, and that someone will be encouraged to produce a catalogue of the equally important foreign donations. JCT wrote the history and provided the references to manuscripts in the catalogue; DTM and DLM compiled the catalogue, and DTM provided the notes on the surviving specimens.

HISTORY OF THE MUSEUM OF THE GEOLOGICAL SOCIETY

The First Few Years

The Geological Society was founded as 'a little talking geological dinner club' on 13 November 1807, at a meeting of eleven enthusiasts for mineralogy and geology at the Freemason's Tavern, Great Queen Street, London (Woodward, 1907: 1)[1]. Much the same group had been meeting for several years previously to examine mineral specimens, first at the house of Dr William Babington (1756–1833) in Aldermanbury, and later at William Phillips' (1773–1828) off Lombard Street. Several of them had been members of the short-lived British Mineralogical Society of 1799–1806 (Watts, 1926: 108), as well as having been involved with the Hon. Charles F. Greville (1749–1809) in a scheme for a national mineral survey (Weindling, 1979). It appears to have been due to a suggestion by Humphrey Davy (1778–1829) that they should meet in the evening for roast beef and wine, rather than in the morning for coffee and buttered buns, that led to the change from an informal group of friends to the Geological Society. The first aim of the new society was to make 'geologists acquainted with each other' and to stimulate their zeal. The second, which was to have far-reaching consequences, was to induce them to accept one nomenclature, to facilitate the collection of new facts, and to ascertain what was known in their science and what yet remained to be discovered.

As Rudwick (1963) has pointed out, it was this second group of aims which made necessary the enlargement of the Society by the enrolment of collaborators all over the country and overseas. At the second meeting, on 4 December 1807, forty members from outside London were elected, and were charged by letter with communicating their discoveries and opinions on geological subjects relevant to the areas in which they lived. They were not expected to address themselves to the more complex areas of the science,

but were encouraged to send mineral specimens and reports of phenomena up to London. The following year, to further stimulate their zeal, these 'Honorary Members', as they were called, were sent a pamphlet entitled *Geological Inquiries*. This laid down the sorts of thing they were to look out for, so that the Society might build up 'a fund of practical information . . . applicable to purposes of public improvement and utility'. With a network of collectors and observers scattered over the country, the Society, in the person of George Bellas Greenough (1778–1855), became the central repository for geological facts. It was intended that these facts would be arranged with Baconian simplicity to illustrate the mineral history of the British Isles and would lead to the development of Britain's 'native riches and internal resources'. Although *Geological Inquiries* did not mention the acquisition of specimens, many members, both in and out of London, responded to the appeal by sending rocks and minerals up to London. The earliest recorded donation came from Sir Joseph Banks (1743–1820) who, on 5 February 1808, gave plans, a section and specimens from St Anthon's Coal Mine near Newcastle. With Dr Babington's offer of some cabinets for the receipt of specimens, the Museum of the Geological Society was in being[2].

The Geological Society's Museum was by no means the only such collection in London. Foremost among the museums of the day was the British Museum, founded 1753, which already housed the Brander Collection of fossils and the Greville and Hatchett mineral collections. However the combination of unsympathetic Trustees and unmotivated Keepers meant that science remained at a low ebb at the museum until the reforms initiated by the Select Committee enquiry of 1835–1836 (Gunther, 1980). Of the colleges and learned societies in London at the time, the Royal Society had given its one-time museum to the British Museum in 1781 and the Linnean Society was starting to accumulate a very miscellaneous collection which did include a number of fossils. The Royal College of Surgeons had a fine collection of fossils based on that of John Hunter (1728–1793), which was looked after by its conservator William Clift (1775–1849) and the Royal Institution was building up a mineral collection under the curatorship of Humphrey Davy (Brande, 1816). Among the museums dedicated to public display rather than to scientific research were Edward Donovan's London Museum and Institute of Natural History (sold at auction in 1818), and William Bullock's London Museum of Natural History (sold at auction in 1819) (Murray, 1904).

The founders of the Geological Society presumably believed that none of these museums would serve the needs of their members, and that a museum of their own was the only answer. Its distinctive features were that it would be for members and their guests only, that specimens would be available for loan by members, and that it should be useful both to beginners and accomplished geologists. A further feature was that the Society set out to gather together a comprehensive collection. The museum was not simply intended to represent the activities of members, but was to display the entire range of geological phenomena.

With such ambitious plans, it is not surprising that early in 1809 the Society found it necessary to take a lease on part of a house in the Garden Court, Temple, where the still small Museum was laid out for the first time. Collections, large and small, poured in. Of the founders, Greenough, Babington and James Franck (ob 1843) were early donors, while Thomas Meade of Chatley, Joseph Herbert of Bristol and Alexander Jaffray of Newcastle were among the first of the Honorary Members to respond to their letter of appeal. Council set up a Committee of Arrangement in 1810 to take charge of the growing mineral collection. Leonard Horner (1785–1854), one of the secretaries, seems to have been the most enthusiastic member, and the catalogue that they drew up is partly in his hand[3]. The Committee had definite ideas about the sort of specimens they were prepared to accept. They cut Colonel Ninian Imrie's Grampian rocks down to size, and then left Council to face his outraged protests[4]. They followed the arrangement that

Davy used at the Royal Institution, subdividing the British specimens by counties and the foreign ones by country. The only collection retained as a separate entity was the suite of rocks from Freyberg illustrating the Wernerian system, which had been presented by J. H. Vivian (1785–1855) in 1808[5]. Both security and conservation were addressed by Council in the first few years of the Museum, with the provision of locked cabinets for special specimens and the regulation that specimens should be touched as little as possible, and then only by their edges, 'in order that the external characters of the specimens may be preserved from injury'[6].

The Webster Era

The Society had moved to a slightly larger house, in Lincoln's Inn Fields, in 1810 (Woodward, 1907: 32), but still there was not enough space. New acquisitions piled up on the floor while the existing collection was still being catalogued, throwing everything into confusion. Great gaps were left in the catalogue to be filled in later when there was more time, but disorder always seemed to increase. Clearly there was too much work for the honorary officers, and a paid member of staff was the only solution. So it was that in June 1812 Horner, supported by Greenough, proposed that Thomas Webster (1773–1844) should be appointed to the new post of Keeper of the Museum[7]. Webster had studied architecture as a young man, and had been Clerk of Works to the Royal Institution from 1799 to 1802 (Edwards, 1971). He had joined the Society in 1809 and was Secretary to the Committee of Maps, as well as a contributor to meetings and the *Transactions*. He was appointed to superintend the Library and Museum, to act as secretary to the committees, to draw illustrations for meetings, to make fair copies of the minutes and abstracts of papers, and to assist the honorary secretaries as required. All these multifarious duties were to be carried out in just three days a week, for an annual salary of £100[8].

Webster was Keeper of the Museum for fifteen years (Woodward, 1907: 47). His achievements can be seen in the great Waste Book in which he recorded the steady influx of specimens[9], and in the beginnings of his British catalogue[10]. On the whole, however, his keepership was an unhappy one, both for himself and the Society. He arrived at a time when the early emphasis on mineralogy and utility, favoured by men such as William Babington, Count de Bournon (1751–1825) and William Phillips, was giving way to the much more academic interest in the structure and composition of the Earth favoured by Greenough, Horner and others. At the same time there were signs of a split between those who believed that the identification of strata using fossils was the most important task for a geologist, and those who thought that the succession and structure of rock layers were of more fundamental interest (Miller, 1986). Webster found himself in between warring factions, and he was unable to cope. He felt he was being attacked on every side, with Greenough being particularly dangerous. He was overwhelmed with the work load and also with what he perceived as an atmosphere of bitterness and dishonesty, and was severely ill for at least two long spells. He summed up the Society's officers as 'a bad lot' (Challinor 1961–4, letters 2, 9, 17).

Certainly Webster got a bad press from the officers. The annual reports of Council continued to emphasise the imperfections of the collection, without giving the Keeper any words of praise. In 1817 he was elected a member of Council which, as Lyell recalled years later, was awkward, seeing that he was also a paid employee[11]. In 1819 he was elected one of the Honorary Secretaries and, as Greenough noted, 'from this period Webster gave little heed to the collections'[12]. In 1826 Lyell described him as taking a 'passive lethargic part' in the Society's affairs[13].

Although styled 'Keeper', Webster's position was in fact a lowly one, at least on paper.

Regulations laid down in 1813 stipulated that, while the Keeper was to unpack, number and label specimens with donor and locality details, it was the responsibility of the Committee of Arrangement to name, describe, and catalogue them. Once this was completed the donation would be announced at a meeting and displayed, before being handed back to the Keeper to be put away[14]. It is no wonder that his work was described as being more fitted for a clerk than one of his superior merits (Challinor 1961–4, letter 36).

In 1813 the 'academic' faction moved a resolution in Council to have the British collection arranged into stratigraphic order. The previous geographical arrangement now seemed static and unadventurous. By attempting to arrange specimens in their natural order, it was hoped that the Museum would be at the forefront of geological research and endeavour. Although many parts of Britain were imperfectly known, mistakes in the arrangement were thought likely to attract criticism and discussion, and thus make the collection more interesting and useful. The announcement of this change emphasised that the arrangement would be independent of hypothetical views of origin and time of formation, but the fact was that, by the arrangement of its Museum, the society found itself forced to take sides in many disputes[15]. A start was made on reorganising the British collection along these very Smithian lines, although it was to be many years before it was anything like complete. A catalogue survives for the uppermost subdivisions[16].

By 1819 the Museum contained about 16,000 registered specimens arranged in five separate collections: simple minerals and rocks arranged systematically; British rocks and fossils, the English mostly arranged stratigraphically and the Scottish and Irish by county; foreign rocks and fossils arranged by country; volcanic productions; and organic remains arranged systematically, together with some recent shells. In his address to Council towards the end of the year, Greenough expressed pride that a useful start had been made on this, one of the society's most important objectives. He stressed the importance of the collection both to help the researches of the proficient and to help educate the beginners. In spite of the new arrangement, he saw the Society's Museum as a source of unbiased facts which could be called on to illustrate the disputed areas of geology. However he had harsh words for the state of the collection behind the scenes, where 80 casks of unregistered foreign specimens lay in a damp basement, their labels rotting and their pyrite decayed[17]. In a manuscript note he was even more forthright:

> This habit of exposing to destruction objects which have been given to us to preserve & of rendering inaccessible what we have received . . . is unfair to the donors & discreditable to the Society. If to form a collection be one of the main aims of our association the specimens should be at least in the dry & not in casks but cabinets. Specimens that are useless are worse than useless, they are a care, an incumbrance & a disgrace[18].

By this date, Greenough was the only one of the leaders of the Society who still believed in the existence of unbiased facts. The original Baconian empiricism had been largely discredited, and replaced by a somewhat more sophisticated understanding of the relations between observation, preconception and theory. This had led to a reassessment of the role of the Honorary members, as it was realised that their observations would be of little use unless informed by a sound understanding of geology (Laudan, 1977).

In 1827 a Committee of Council considered the domestic establishment of the Society and recommended that a married couple should live in as housekeepers, aided by a manservant, and that there should be a Curator responsible for the Museum. No mention was made of the need for a librarian or for an editor. The Committee suggested that Webster be offered this remodelled post. It was unfortunate for Webster that, just

before the next Council meeting, the Clerk absconded with the sum of £63. Council held Webster partly to blame for the incident, and required him to pay half the money from his own resources. Whether or not this influenced them, Council did not appoint Webster as Curator, and he left on 1 July 1827[19].

William Lonsdale, Curator

The man eventually appointed to fill the post was William Lonsdale (1794–1871) (Woodward, 1907: 125), who was a survivor of the battles of Salamanca and Waterloo and who had been Curator to the Royal Literary and Scientific Institution in Bath from 1825 to 1829 (Torrens, 1975). Lonsdale had mapped the Jurassic rocks around Bath during his residence in the city, and had read a Smithian paper to the Society in February 1829 (Lonsdale 1829). William Fitton (1780–1861) lobbied hard on his behalf, and he was appointed Curator and Librarian in 1829. Lyell gave his reactions to Lonsdale's arrival to Mantell:

> Lonsdale is installed & a glorious reform will be made by him, Webster of course will throw himself into the Thames when he understands that £200 a year are to be given to an alter Webster out of which however L is to find his clerk. He has that humility of character about him that I fear not him being above the plan. He is not to be like Webster a member of Council. . .[20]

Like Webster, Lonsdale had to deal with the Library, prepare illustrations for the meeting room, write abstracts of papers for the Proceedings, and keep the accounts, as well as take charge of the Museum. He was, however, employed for a full five days a week, at a salary of £200 a year[21].

Lonsdale was a great success. He put in long hours at the museum, often working far into the night and right through his holidays, cleaning and labelling specimens in his characteristically neat hand. He was able to identify most invertebrate groups, and was an acknowledged expert on corals. He was given much more scientific responsibility than Webster ever had, and, through his voluminous correspondence, turned the society into a centre for geological information of all kinds[22]. As far as can be told from the surviving documents, he was of one mind with the officers.

With the coming of Lonsdale, a standing Museum Committee was established for the first time. This was a group of three or four prominent members who inspected the Museum each year and reported on its state to the Annual General Meeting. These reports frequently included recommendations for the better management of the Museum, which were normally accepted without question at the Annual Meeting. As membership of the committee changed each year, and as few members took the trouble to read back far into the minutes, it is not surprising that over the years all sorts of contradictory decisions on both policy and method were made. While in many endeavours a regular supply of 'new blood' is an advantage, for the Museum it meant that many jobs were started, but few were finished before the Museum Committee changed tack.

By 1828 the house in Bedford Street was too small, and the Society was able to move into rooms in Somerset House, granted to them by the government. Greenough did a lot of the preliminary tidying and packing, but Lonsdale was responsible for the new arrangement. Five years later he had to move the whole Museum again, when new rooms were provided, and a more spacious display was possible.

Lonsdale's routine work would have been to deal with the fifty or so collections donated each year. The specimens would be unwrapped and compared with any list provided by the donor. The collection would be entered into the donations book and

displayed at an appropriate evening meeting.[23] Specimens would next be labelled with locality and donor and the donation would further be recorded in the minutes of the evening meeting and, eventually, in the *Transactions*. The specimens would then be placed on the shelves, where they would wait, perhaps for years, before being identified and catalogued in detail. The waste book bears few if any entries in Lonsdale's hand, so it appears that he did not have any general registering or numbering system in operation.

On top of this came the projects decided on by the Museum Committee. These included the reordering of the mineral collection according to Phillips' *Introduction to mineralogy* (1823), the reordering of the Scottish collection into a stratigraphic arrangement, and the stratigraphic arrangement of the newly-described Silurian rocks of Britain. Whatever demands were put upon him, Lonsdale fulfilled. At the same time he was cataloguing the library, editing the *Transactions*, and carrying out his voluminous correspondence with fellows all over the world. Although they recognised imperfections, the Museum Committee reported on the 'excellent state of preservation of the whole museum', and commented on the 'unwearied zeal and discriminating skill displayed by the Curator' (Museum Committee, 1836).

From Lonsdale to Horner

This happy situation did not last. In 1836 Lonsdale's health broke down from overwork, and the Museum did not recover for some thirty years. He was relieved of the curatorship and allowed to devote his remaining energy to the Society's Library and publications. Between 1839 and 1848 no fewer than five curators had a hand in running the Museum. First came Searles V. Wood (1798–1880), who made a great effort with the British Tertiary collection; next came Samuel P. Woodward (1821–1865) as sub-curator, with Lonsdale back in nominal charge (Woodward, 1907: 126). When Lonsdale finally retired in 1842, six candidates applied for the post. One, Edward Charlesworth (1813–1893), was declared ineligible by the Council, reputedly on account of his ill-temper (Burkhardt & Smith, 1986: 345). This led to an acrimonious flurry of pamphlets and petitions, a Special General Meeting, and the near-resignation of Greenough. In the end Edward Forbes (1815–1854) was selected, and devoted his energies to the Lower Cretaceous (Forbes, 1845). He in his turn resigned in 1844 on being appointed to the Geological Survey, and David T. Ansted (1814–1880) was appointed Vice-Secretary with responsibility for the Museum. The next Curator was James de C. Sowerby (1787–1871), who rearranged part of the British Upper Palaeozoic, before resigning himself in 1848. All of these five were able geologists who came in with energy and determination, but their short lengths of service, together with the regular turnover of Officers and Museum Committee meant that there was no continuity of purpose. Schemes of arrangement and cataloguing were started, but long before they were completed some new initiative was under way. There were so many conflicting resolutions scattered through the Council minutes that it was hard for anyone to discover just what was really intended for the Museum.

Towards the end of 1845 the suggestion was made that the Society could no longer cope with its Museum, and that some radical action was needed. A Special Committee was appointed to consider the future of the Museum, 'bearing in mind the Geological Society's limited resources'. The Committee found a Museum of perhaps 40,000 specimens in 1700 drawers and a large number of packing cases, divided into six collections, which was each year slipping a little further into confusion and disuse. The question they faced was: can the Society cope with both the British and Foreign collections, and if not then which one should go? One viewpoint was put to the Committee by Lonsdale, who supported the British Collection on the grounds of its great

scientific value, its potential for completeness, and its appeal for visiting foreigners. Forbes, on the other hand, pointed out that the British Collection merely duplicated the one then being formed at the Museum of Economic Geology in Craig's Court, and recommended that the Society should concentrate its efforts on the Foreign Collection. The Committee produced a long report, full of interesting historical material, but short on firm recommendations. They did suggest that rock and mineral specimens could be reduced in number, and that large fossil bones might be transferred somewhere else, but they had no radical solution to the problems the Society faced in caring for its Museum (Museum Committee, 1848)[24].

Through the 1850s a succession of small but useful jobs were taken on by T. Rupert Jones, who was Curator from 1850 to 1862, with the assistance of Fellows such as S. P. Pratt, J. W. Salter, W. W. Whitaker and H. D. Rodgers. Accessions were incorporated and some naming was done. A large and extra-illustrated copy of Morris' *Catalogue of British Fossils* (1843) was prepared by Leonard Horner for use in the Lower Museum in 1855[25].

In 1859 yet another Special Museum Committee was set up with the task of bringing the Museum into order. Leonard Horner was the convener and most active member, and over the following five years he was to bring the Museum back to the sort of state it had been in under William Lonsdale[26]. During their first year of activity Horner organised and catalogued the collection of typical rocks[27], and examined the collection of simple minerals and arranged them according to Phillips' *Introduction to Mineralogy* (1837)[28]; Joseph Prestwich produced a scheme for dealing with the foreign Tertiaries[29]; and S. P. Woodward named and catalogued the collection of recent shells[30].

This was only a start. In their report for 1859, the Committee sent out a call to action, restating the belief that the success of the Society 'in promoting and extending geological knowledge' depended on the Museum and its availability (Museum Committee, 1860). A thorough examination the following year revealed that, although the smaller collections were now adequately curated, and the British Collection was not getting any worse, the Foreign Collection was in a terrible state. The consensus of opinion by this date was that this neglected Foreign Collection was clearly the most important element in the Society's Museum, and that the British one was indeed largely duplicated in Jermyn Street. Leonard Horner, who became President in 1860, was indefatigable, returning to the task that he had started so ably more than fifty years before. He worked long hours in the Museum, working his way right through the huge Foreign Collection, checking its geographical subdivision, and setting each national collection into stratigraphic order. As he went through he removed and discarded large numbers of rock specimens and weeded out duplicate fossils. He produced a catalogue of the European Collection[31], a stratigraphical index to the whole Foreign Collection[32], and a list of the papers published by the Society with references to relevant specimens in the Museum. Never before had the Society had anyone with the knowledge and single-mindedness to complete a reorganisation of this sort. Small wonder that the Report of the Museum Committee for 1863 referred to 'the unremitting zeal and continuous labour bestowed upon the re-arrangement of the Society's collections by Mr Horner' (Museum Committee, 1864).

The late 1860s mark the second high point in the Museum's history. The collection was clean, orderly and reasonably accessible. There was a continuous programme of identification of fossils by Fellows such as P. Martin Duncan (1821–1891) and Ralph Tate (1840–1901) proceeding at a rate of about 50 drawers a year. Gaps in the Foreign Collection were brought to the notice of fellows in the hope that they would be filled, but over much of its range the collections were thought to be thoroughly representative.

Decay and Dispersal

This happy state of affairs did not survive long after Horner's death. In 1869 the Council, under the presidency of T. H. Huxley (1825–1895), Palaeontologist at the Museum of Practical Geology, decided to abandon attempts to build a comprehensive collection. It decided that in future only specimens directly related to papers read to the Society would be accepted, and the suggestion was made that the whole museum might be reorganised yet again, to bring donated collections back together[33]. This was a complete reversal of the society's 60 year-long attempt to build a collection rather than just accept donations. In fact the edict had the result of more or less halting donations of any kind, and from this date papers read at ordinary meetings were often accompanied by the loan of specimens for display, but rarely by their gift. The move to Burlington House in 1874 (Woodward, 1907: 248) was the spur for a thorough weed out of duplicates and the production of a new shelf list of the British Collection[34]. Bernard B. Woodward (1853–1930) was employed to oversee the move, and to cope with the arrangement of the Museum in its new home (Anon, 1876). After Woodward's resignation in 1876 the collection received only minimal care and maintenance until 1891. In this year C. D. Sherborn (1861–1942) started to clean, label and register type and other important specimens. He had worked through the 1000 or so drawers of the British Collection by 1894, and the 750 drawers of the foreign Collection by 1900, producing a new register of nearly 15,000 important specimens[35].

There was by now a strong faction in the Society who believed that the Museum should go. On 20 November 1895 Council accepted that a large proportion of the Museum should go to the National Collection, and the offer was accepted in principle by the Trustees of the British Museum, but the decision was postponed indefinitely after a Special General Meeting the following year[36]. In 1901 a group of palaeontologists, including F. A. Bather (1863–1936) of the British Museum (Natural History) and F. L. Kitchin (1870–1934) of the Geological Survey, called a Special General Meeting to try to force Council to take better care of the Museum (Anon, 1901). Their plan backfired when an amendment, moved by H. H. Howorth, that the collection should be disposed of, was carried by a sizeable majority[37]. Still nothing was done. Instead, in an extraordinary move, John F. Blake (1839–1906) prepared a shelf list for the whole Museum[38], and published, at his own expense, a catalogue of all the type and figured fossils in the Museum, based on Sherborn's register (Blake, 1902). This publication led to a last flurry of interest in the collection, as visitors and requests for loans trebled in number[39].

The final act in the drama came at special general meetings held on 25 January and 14 June 1911, when it was resolved that the Museum should be given away and the space used by the Library[40].

THE FATE OF THE COLLECTIONS

Specimens were disposed of in large numbers throughout the history of the Museum. The Report of the Museum Committee for 1848 documents the sale, donation, exchange and destruction of specimens through the preceding 40 years, as well as the unsuccessful measures taken to avoid the accumulation of masses of worthless material. Only three years later the Committee's report lists 11 institutions that had been given specimens during the year (Museum Committee, 1851). There is no doubt that some, at any rate, of this material must survive in museum collections up and down the country and overseas,

but no attempt has been made to trace it. On a few occasions valuable material was given away, usually because it took up a lot of space. Thus a large collection of fossils in matrix from Cape of Good Hope sent by A. G. Bain (1797–1864) was given to the British Museum in 1852[41].

In spite of these depredations, there were still tens of thousands of specimens in the Museum when it was finally disposed of in 1911. The Museum was divided into three parts: the British specimens, with a few exceptions, went to the Geological Survey and Museum; the foreign collection, recent shells and some British minerals went to the British Museum (Natural History) (also with a few exceptions, see below); and certain large and decorative specimens remained in Burlington House.

The specimens which were retained in Burlington House were listed in 1911, but at the time of writing have now mostly gone. A number were cleared out of a basement room in the early 1970s, and only a large ichthyosaur skull from Lyme Regis given to the Museum in two parts in 1827 and 1846, and a Pleistocene rhinoceros skull given by Buckland in 1820, remain today.

The collections at the Geological Survey and Museum

In 1911 the Geological Survey and Museum faced the Geological Society across Piccadilly. There were close ties between the two organisations, and all the directors of the Survey had had at least one term as President of the Society. F. L. Kitchin was Chief Palaeontologist, assisted by H. A. Allen (1854–1934) (Flett, 1937). On arrival at the Survey, the rocks were separated from the fossils. The best of the fossils were re-registered over the years in a series of registers, with the prefixes Geol. Soc. Coll., GSa, GSb, GSc and GSd. The register entries totalled nearly 30,000. These specimens were incorporated into the 'type, and stratigraphic' and 'Survey' collections when the Survey moved to the Geological Museum in South Kensington in 1935 (Rushton, 1979). They formed a most important addition to the Survey's collection, and have been used as the basis of taxonomic and stratigraphic research ever since. Many were, and at the time of writing (1990) a few still are, displayed in the regional and fossil exhibitions in the Geological Museum. A typescript list of donors represented in the Geological Society fossil collection was prepared by Adrian Morter in 1972, and is the basis for statements concerning fossils at the British Geological Survey (BGS) in the catalogue that follows. A small number of minerals, including a series from the Isle of Man, were registered in the Mineral Inventory in 1912.

By contrast, the rock collection received no attention. The specimens in it were mostly too small to exhibit and not sufficiently well localised to be useful for research. A register was prepared, but no entries were ever made in it, and the collection remained largely untouched.

The collections at the British Museum (Natural History)

In 1911 the British Museum (Natural History) was situated on Cromwell Road, South Kensington, occupying its present (Waterhouse) building. The BM(NH), too, had close links with the Geological Society, chiefly through Henry Woodward (1832–1921), a former Keeper of Geology, who had been President of the Geological Society from 1894 to 1896. In addition B. B. Woodward (1853–1930), the Museum's Librarian, had been Assistant in the Society's Museum at the time of the move to Burlington House in 1874. The offer of the collections was accepted by the Trustees on the basis of favourable reports by G. T. Prior (1863–1936) and A. Smith Woodward (1864–1944), the Keepers of

Mineralogy and Geology respectively[42]. By the end of October Prior reported that 17,000 rocks and minerals had been brought over from Piccadilly and were housed in the basement[43]. Dr W. Campbell Smith (1887–1988) subsequently cleared out the unlabelled or otherwise worthless specimens and arranged for the registering of the remainder; the registers were finally completed by 1926 (Smith 1982: 63; Moore, 1982*a*: 145). A number of British and Irish mineral specimens from the Geological Society were registered (BM1911, 378–743) at this time, even though, on the face of it, these specimens should have gone to the Survey and Museum.

The fossils meanwhile had been transferred from the Society by July 1911, and occupied 750 drawers in the Geology Department. As the palaeontological collection of the BM(NH) were, and indeed still are, taxonomically arranged they were then distributed among the various sections, each of which was responsible for particular fossil groups. Here the best of the specimens were added to the sectional collections.

The collection of recent shells was considered and rejected by the Zoology Department of the BM(NH), and was given to the National Museum of Wales, Cardiff[44].

As mentioned in the introduction, the move of the Geological Survey to Keyworth led, in 1985, to the surviving Geological Society rock and mineral collections, both foreign and British, being reunited in the British Museum (Natural History). It was the largest single donation of British rocks that the museum has obtained and in the history of the rock collections at the BM(NH) there have only been two previous larger acquisitions. These were the India Museum collections in 1879 (Moore, 1982*b*) and the foreign specimens of the Geological Society of London in 1911 (Moore, 1982*a*). In the alphabetical catalogue which follows it was intended to give the BM numbers for the rock collections listed, but from the collection of R. T. W. L. Brickenden onwards the collections are unregistered, and only the existence of the specimens in the Mineralogy Department can be recorded.

Many of the documents relating to the Museum were passed to the British Museum (Natural History) along with the specimens. These comprise 22 volumes of registers, shelf lists, accession books, loan books, and collectors' catalogues that are now in the Palaeontology Library of the Natural History Museum, as well as a number of letters from collectors that are distributed through the Mineral Library manuscripts. Details of the most important manuscripts are given in the numbered notes. Other manuscripts, in particular two letterbooks concerning British and Irish acquisitions 1808–1845, remain at the Society.

EDITORIAL CONVENTIONS

The alphabetical index presented in this paper used the printed lists of donations which appeared in the Society's *Transactions* as the primary record for the period 1807 to 1845. Each entry gives the donor's full name and dates, the date of acquisition as it appears in print, except where misprints in the year have been silently corrected (Thackray, 1989). The series and volume number of the *Transactions* are cited, together with a descriptive entry which is transcribed from the printed version with the following alterations: the words 'specimen of', 'a collection of' and 'a series of' are often omitted, and capitalisation has been modernised. All mispellings and inconsistencies should be understood as being '*sic*'. Incorrect or incomplete locality names may be followed by an editorial insertion in square brackets. Where further information about the donations has been gleaned from another source, such as the manuscript minute books, catalogues or correspondence, this will appear within ‹›. Where the specimens were presented in

conjunction with the reading of a paper, this is referred to at this point. Notes on the survival of specimens or relevant letters and catalogues appear in italic. Where the *Transactions* entry has been repeated in the *Proceedings* this is noted.

For the period 1846 to 1911 the *Quarterly Journal* is used as the primary source. The same conventions are used as above, but it should be noted that, as with the *Proceedings*, the date quoted is that of the Annual General Meeting, and will be up to a year later than the date of the donation.

Catalogue entries are also given for items which are noted in the Society's manuscript minute books, the Waste Book, donations books or in Society correspondence, but which do not appear in the printed donation lists. These are given the reference 'MS only'. Catalogue entries are also given based on a number of rocks in the BM(NH) collections, and fossils in Adrian Morter's list for the Geological Survey, which cannot be related to any recorded donation.

NOTES

Abbreviations used for manuscript repositories are as follows:

ATL – Alexander Turnbull Library, Wellington, New Zealand.
CUL – Department of Manuscripts, Cambridge University Library.
GSL – Archives of the Geological Society, London.
NHMA – Archives of the British Museum (Natural History).
NHMP – Palaeontology/Mineralogy Library of the British Museum (Natural History).
UCL – Department of Manuscripts, University College, London.

[1] Factual statements not otherwise supported by a reference are based on a study of the Council Minutes and Minutes of Ordinary Meetings in the archives of the Geological Society. Most of the events are referred to in the standard history of the Society (Woodward, 1907)

[2] Minutes of Ordinary Meeting, 1 January 1808, GSL OM1/1 p. 13

[3] *Museum Catalogue – minerals, 1808–*[1811]. A register of specimens 222–1068, giving register number, description, donor and location. Nos. 222–484 are in the hand of Leonard Horner; Nos. 485–1068 are by an unidentified writer, possibly Henry Warburton. NHMP Mss GEO.

[4] Minutes of Council Meeting, 11 March 1812, GSL CM1/1 p. 34.

[5] This collection was transferred to the then BM(NH) from the Geological Society with the foreign specimens in 1911. It is now BM1911,1167 (Bishop *et al* 1971: 64, and Moore, 1982*a*).

[6] Minutes of Council Meetings 14 June 1810 and 13 May 1812, GSL CM1/1, pp. 3, 37.

[7] Report of Council to the General Meeting, 5 February 1813, GSL CM6/1, p. 49.

[8] Minutes of Council Meeting, 24 June 1812, GSL CM1/1 p. 40.

[9] *Waste book* [1813–1826, 1845–1847]. A register of specimens, 2757–2887 and 6000–25,588, giving register number, description and location of individual specimens in some places, very brief summaries for whole collections in others. Most of nos. 2757–2887 and 6000–23,476 are in the hand of Thomas Webster; 23,600 to 25,588 are in the hand of J. de C. Sowerby. NHMP Mss GEO.

[10] *Museum Catalogue Alluvium – Lias* [after 1815–c.1825]. A list of part of the British collection arranged in stratigraphic order. This catalogue was presumably compiled by Webster but does not appear to be in his hand. NHMP Mss GEO.

[11] C. Lyell to G. A. Mantell, 20 April 1829, Mantell Papers, ATL.

[12] *Documents relating to the Museum of the Geological Society*, p. 30, Greenough papers, UCL, 5/2.

[13] C. Lyell to G. A. Mantell, 22 June 1826, Mantell papers, ATL.

[14] Minutes of Council Meeting, 21 May 1813, GSL CM1/1 p. 58.

[15] Report of Council to the General Meeting, 4 February 1814, GSL CM6/1, p. 73.

[16] Catalogue cited in note 9.

[17] President's address to Council, 3 December 1819, GSL CM1/1 p. 355.

[18] *Documents relating to the Museum of the Geological Society*, p. 25, Greenough papers, UCL 5/2.

[19] Minutes of Council Meetings 19 March and 9 June 1827, GSL CM1/2, pp. 140, 150.

[20] C. Lyell to G. A. Mantell, 20 April 1829, Mantell Papers, ATL.

[21] Minutes of Council 18 April 1829, GSL GM1/2, p. 304.

[22] Lonsdale's correspondence is contained in the Secretaries' Letterbooks, 1834–1842, GSL LR1/1–7.

[23] Museum donations books for 1836–1838 and for 1847–1911 are preserved. NHMP Mss GEO.

[24] Two versions of the report were printed for the use of Council in 1848, one of 24pp, and the other, later version of 28pp. There are copies of these in the Greenough papers, UCL, box 13. A much abbreviated version was printed in the *Proceedings* (Museum Committee 1848). See also *Remarks on Report of the Committee on Foreign Museum as presented to Council 3 Jan 1849*, Greenough Papers, UCL, 5/5.

[25] This copy, expanded to fill three folio volumes is at GSL, LDGSL 26.

[26] Museum Committee Minute Book, 1859–1862, GSL COM/Mu1

[27] *Typical collection of rocks – catalogue, 1859*. A catalogue of specimens 1–1214 giving catalogue number, name, location, locality and donor, with full notes on facing pages. The catalogue was compiled and written by Leonard Horner; the preface is signed November 1859. NHMP Mss GEO.

[28] An interleaved and annotated copy of the book is at GSL, LDGSL 23.

[29] *A brief report regarding the arrangement of the foreign Tertiary collection*, by J. Prestwich, 1859, GSL COM/Mu6.

[30] *Recent shells – bivalves, 1859* and *Recent shells – univalves, 1859*. A catalogue by S. P. Woodward, arranged on the same plan as his *Manual of the Mollusca* (1851–1856). NHMP Mss GEO.

[31] *Foreign collections – North and South America, West Indies, Australasia, Islands of the Pacific. c.1862* and *Register of foreign collections, Europe, Asia etc. c.1862*. Lists of collections in the Museum are given for each of the main geographical subdivisions, together with a reference to the cabinet and drawers in which they may be found. The European register has shelf lists of identified fossils tipped in at the back. The lists were compiled and written by Leonard Horner, who also wrote an introduction giving his scheme for arranging the collections. NHMP Mss GEO.

[32] *Register of Foreign Collection, Stratigraphic arrangement, c.1862*. This catalogue divides the foreign collections into 23 stratigraphic subdivisions, and lists locality, number of specimens, and location within the museum for each one. It is mostly in Horner's hand. NHMP Mss GEO.

[33] Minutes of Council Meeting, 9 December 1868, GSL CM1/9, p. 392

[34] *Museum catalogue – English, 1873–1874*. A detailed shelf list of the British collection compiled by T. R. Jones and B. B. Woodward in preparation for the move of the Museum to Burlington House. It gives location, description, references and comments. NHMP Mss GEO.

[35] *Museum catalogue – British collection in Tert – Trias, 1890–1900; Collection register of Sharp collection and missing types, 1890–1900; Collection register Vol III foreign,*

1890–1900; and *Collection register Vol IV foreign, 1890–1900*. This is the register of type and historic specimens prepared by C. D. Sherborn between 1890 and 1900. The four volumes contain, respectively, nos. 1–4056, 4957–7886, 7887–12249 and 12250–14489. NHMP Mss GEO.

[36] Minutes of Council Meeting 20 November 1895, GSL CM1/14, p. 86; Minutes of Trusteees Meetings, 25 January and 26 June 1896, NHMA DF900.

[37] Proceedings of Special Meeting, 27 March 1901, were published in *Quarterly Journal of the Geological Society*, 57, xcii.

[38] *Blake – ms catalogue of types etc. c.1905*. This volume comprises a complete shelf list of all the cabinets in the Museum with a rough indication of their contents, and lists of authors whose papers are illustrated by specimens in the Museum. It was compiled by J. F. Blake, NHMP Mss GEO.

[39] *List of specimens borrowed from the Museum, 1843–1911*. This loans register covers both library books and museum specimens, NHMP Mss GEO.

[40] Minutes of Special General Meetings, 25 January and 14 June 1911, GSL COM/Mu3.

[41] Minutes of Trustees Meeting, 14 August 1852, British Museum Archives CE3.

[42] NHMA DF1000/94/1454, 14 May 1911 and /1409, 22 May 1911.

[43] NHMA DF1000/95/2843, 21 October 1911.

[44] NHMA DF1000/94/1974, 19 July 1911.

AN ALPHABETICAL CATALOGUE OF BRITISH AND IRISH ACCESSIONS TO THE GEOLOGICAL SOCIETY'S MUSEUM, WITH A NOTE OF THE SURVIVING SPECIMENS

Adam, John, [M.D. Later of Calcutta]
18 April 1817 TGS(1) 4 Specimens found on the Strathmore Estate, Parish of Eassie, Forfarshire *(Letter extant of 21 April 1817, GSL Mus1/200)*

Acton, Mrs Stackhouse
There are believed to be Silurian fossils at BGS

Aikin, Arthur (1773–1854)
1 March 1811 TGS(1) 1 Specimens from Shropshire in illustration of Mr Aikin's account of the great coal-field of that county (Aikin, 1811).
5 April 1811 'MS only' Specimens from the coal district of Shropshire
6 December 1811 TGS(1) 2 Witherite from Shropshire ‹nr Shrewsbury›*
3 April 1812 TGS(1) 2 Garnet rock from Huntly, in Banffshire*
3 April 1812 TGS(1) 2 Specimens from the Paris mine, in Angelsea
17 April 1812 TGS(1) 2 Fibrous rock salt from Northwich [Cheshire]
20 November 1812 TGS(1) 2 Coal and greenstone from Walsall, in Staffordshire (Aikin, 1816)
5 May 1815 TGS(1) 3 Freshwater shells from a gravel-pit ‹at the depth of 3 or 4 feet› in Moorfields [London]
15 March 1816 TGS(1) 3 Specimens from Litchfield [Staffordshire, to illustrate a paper by Aikin (1817)]
2 April 1816 TGS(1) 3 Fossil shells from Blackdown [Dorset]*
6 October 1817. A specimen of selenite from Ely, Cambridgeshire*
5 February 1819 TGS(1) 5 Fossils from the Highgate tunnel [London]

26 January 1822 TGS(2) 1 Chert from Halkin Hill, Flintshire ‹used for mill stones›
21 January 1824 TGS(2) 2 Impression of a leaf in coal shale from Welbach Colliery, near Shrewsbury
29 June 1824 TGS(2) 2 Magnesian Limestone from Mansfield, Nottinghamshire
12 June 1826 TGS(2) 2 and 16 February 1827 PGS 1 p. 15 Specimens from Cader Idris, north Wales (Aikin, 1827)
25 January 1832 TGS(2) 3 Specimens of coal from south Wales and Staffordshire *(Undated letter extant, GSL Mus1/191)*

* *The one-time Geological Society Museum specimen of garnet is now in the Department of Mineralogy, British Museum (Natural History) numbered BM1911,602; and the Shropshire witherite specimen (from Minsterley, Shropshire) is BM1911,590. The selenite specimen is now BM1911,617. A specimen of chalcopyrite from the Parys Mine, Anglesey, attributable to A. Aikin (now BM1911,622) is recorded as having been given to the Geological Society 'before 1818'. The fossiliferous sandstone from Blackdown is now BM1985, P48.*

There are believed to be Tertiary fossils at BGS.

Alexander, Captain Henry, Royal Staff Corps [FGS]
15 February 1839 PGS 3 p. 46 Fossils from the Crag near Southwold [Suffolk]
26 February 1839 TGS(2) 5 and PGS 3 p. 194 Bones from the Crag of Easton and Bulchamp pit, Suffolk *(Letter of H. Alexander to W. Lonsdale, 5 January 1839, GSL LR4/105)*
21 February 1840 PGS 3 p. 195 Shells from the Coralline Crag at Gedgrove and a slab of Coralline Crag from Sudbourne; cast of a mastodon's tooth dredged up off Easton in June 1839 [all in Suffolk] *(Letters, H. Alexander to W. Lonsdale, 24 February and 17 September 1839, GSL Mus2/49,50)*
21 February 1855 QJGS 11 Flints with fish-remains from Norfolk (Alexander, 1854)
Tertiary and Quaternary fossils at BGS.

Allan, Thomas (1777–1833)
7 June 1811 TGS(1) 1 Specimen from the neighbourhood of Harrogate [Yorkshire]
5 November 1813 TGS(1) 2 Specimens of zeolitic amygdaloid from Ferroe ‹having marks of igneous fusion› [Faeroe]
2 June 1815 TGS(1) 3 Concretions found in a clay pit at Erith, Kent
16 January 1818 TGS(1) 5 Siliceous casts of perforations in a belemnite
13 July 1821 TGS(2) 1 Siliceous casts of perforations in belemnites
23 February 1822 TGS(2) 1 Coal, showing a fibrous structure, from the neighbourhood of Dunfermling [Dunfermline, Scotland]

Allen, Elliston (1780–1838)
23 May 1836 TGS(2) 5 Remains of the elephant, &c, from Bollingdon [Ballingdon] Hill, Essex *(Letter, 13 June 1836, GSL LR2/44.)*

Allen, T.
White Limestone from County Antrim at BGS

Allies, Jabez (d.1856)
1837 'MS only' Fossil plants from Bickmarsh, [Warwickshire] (*Letter, J. Lindley to W. Lonsdale, [1837], GSL Mus 2/14*)
Liassic fossils at BGS.

Ansted, David Thomas (1814–1880)
15 February 1850 QJGS 6 Two specimens of Gorgonia keuperi from the Keuper Sandstone of Leicester
Triassic and Cretaceous fossils at BGS.

Anstice, Robert (1757–1845)
1 Sept 1816 TGS(1) 4 Specimens accompanying a paper by Anstice [(1821)] ‹bone and a tooth from the banks of the River Yeo, Somerset›
13 September 1817 TGS(1) 5 Arragonite from a cavern in the Quantock Hills ‹near Merridge›, Somerset*
17 April 1818 TGS(1) 5 Grauwacke rock in which the cavern in the Quantock hills containing the arragonite is found *(Letter, R. Anstice to C. Stokes, 2 April 1818, GSL Mus1/104)*
4 December 1818 TGS(1) 5 Arragonite from ‹Old Cleeve Hill›, Somersetshire* *(Letter, R. Anstice to C.Stokes, 9 November 1818, GSL LDGSL28)*
28 May 1820 TGS(1) 5 Black rock from Dublin, with an Entomilithus [a trilobite]
* *The Geological Society Museum specimen of 'aragonite' is now BM1911,583. According to a register annotation in the Department of Mineralogy, BM(NH), the specimen is, in fact, calcite*

Anstice, William (1781–1850)
20 February 1846 QJGS 2 Shells &c from Coalbrook Dale [Shropshire] illustrating Mr Prestwich paper (Prestwich, 1840) [listed in Wastebook 23600–23727]
Carboniferous fossils at BGS

Anstie, James Overbury (d.1842)
19 February 1830 PGS 1 p. 177 Specimens illustrative of the neighbourhood of Devizes, Wiltshire
16 March 1831 TGS(2) 3 and PGS 1 p.261 Ammonite from Calcareous Grit of Seend, Wiltshire

Apsley, Captain Alexander (d.c.1826)
9 July 1827 TGS(2) 2 & PGS 1 p. 47 Recent shells, fossils and minerals
Carboniferous and Jurassic fossils at BGS.

Ashe, T. [?could be J.]
21 February 1868 QJGS 24 Fossils from the Lingula Flags and the Tremadoc Series [north Wales].
Cambrian fossils at BGS.

Atkinson, William
1 June 1810 TGS(1) 1 Specimens obtained in sinking a well at Twyford, near Acton, Middlesex *(Letter, 31 May 1810, GSL Mus1/46)*

Austen, R. A. C., see Godwin-Austen, R. A. C.

Austin, Major Thomas (1795–1881)
21 February 1840 PGS 3 p.195 Specimens of the rocks from Waterford Haven [Ireland] (Austin, 1839) *(Letter, 26 October 1839, GSL Mus2/85)*

Babbage, Charles (1792–1871)
18 December 1833 TGS(2) 4 & PGS 2 p. 29 Hastings sandstone ‹with ripple marks›
15 February 1861 QJGS 17 Skull of a cat in stalagmite from a bone-cave in south Devon
Pleistocene fossils at BGS

Babington, William (1756–1833)
3 November 1809 TGS(1) 1 Specimens from a clay-pit near Swanage, Dorsetshire
3 November 1809 TGS(1) 1 Copper and lead ores from Ross Island, in the lake of Killarney [Ireland]
9 November 1820 TGS(1) 5 Rocks from Scilly Island and Ireland
31 July 1822 TGS(1) 5 Portion of a septarium from the London Clay

Babington, W., and G. B. Greenough
4 November 1808 TGS(1) 1 Specimens from Ireland, Scotland and Wales

Bailey, Thomas F.
January 1841 'MS only' gravel from Basford (*Letters to W. Buckland, 25 & 30 Jan 1841, GSL Mus2/56–57*) (Bailey, 1841)

Baillie, John S. [of New Kilpatrick]
26 September 1840 TGS(2) 6 & 19 February 1841 PGS 3 p. 373 Crinoidal and other remains from the neighbourhood of New Kilpatrick [Scotland] *(Letters, J. S. Baillie to W. Lonsdale, 11 August, 30 September and 28 October 1840, GSL Mus2/87–89)*

Baker, John (fl. 1814–1850)
Fossils from the Warminster Greensand exist at BGS

Bakewell, Robert (1768–1843)
6 November 1812 TGS(1) 2 Specimens from Leicestershire

Bald, Robert
4 May 1810 TGS(1) 1 Specimens from Clackmananshire illustrative of the stratification of the coal district of that county

Ball, Henry
21 February 1845 PGS 4 p.534 Spongeous flint from the Chalk
Jurassic fossils at BGS.

Ball, W
June 1843 'MS only' Casts of the remains of a fossil elephant from Kent

Banks, Sir Joseph (1743–1820)
5 February 1808 TGS(1) 1 Specimens of strata from St. Anthon's Colliery, Newcastle upon Tyne [Tyne and Wear]
6 May 1808 TGS(1) 1 Specimens from the sinking of a well at Lord Spencer's, Wimbledon [London]
2 December 1808 TGS(1) 1 Fossil wood from Bedfordshire *(Letter, 20 November 1818, GSL Mus1/30)*
7 April 1809 TGS(1) 1 Fossil shells from the coast of Sussex *(Letters, J. Holloway to J. Banks, 26 November 1808, J. Banks to G. B. Greenough, 4 April 1809, GSL Mus1/151, 185)*

Barnes, Rev. J.
Fossils from the flint gravel of Dorchester, Dorset, exist at BGS

Barrett, M. [of Steeple Ashton]
There are Corallian fossils from Steeple Ashton, Wiltshire, at BGS

Barrett, Lucas (1837–1862)
Fossils from the Gault and Greensand of Cambridge exist at BGS

Bathurst, Charles
25 January 1826 TGS(2) 2 Specimens of part of the Oolite Series
5 January 1827 TGS(2) 2 Cast of an ammonite from the Oolitic Series
6 January 1827 TGS(2) 2 Fossils from the rock above the Fuller's-earth at Nutfield [Surrey]

Bayfield, Thomas Gabriel (1817–1893)
17 February 1843 PGS 4 p. 50 Caryophyillia centralis and Terebratula plicatilis from the Norwich Chalk
Cretaceous fossils at BGS.

Beaufort, Captain Francis (1774–1857)
1 June 1838 TGS(2) 5 and 3 p.45 Minerals from Cornwall
16 February 1844 PGS 4 p. 342 Mass of London Clay with shells from the 'West Rocks', S.E. of Harwich [Essex]

Beche, H. T. De la, see De la Beche, H. T.

Beckett, Henry (d.1876)
16 February 1866 QJGS 22 Two fossil plants from the Coal Measures of Dudley
Carboniferous fossils at BGS.

Beckles, Samuel Husband (1814–1890)
20 February 1852 QJGS 8 Specimens of Ornithoidichnite from the Wealden, and two casts of the same, with a cast and bones of a turkey's foot
20 February 1875 QJGS 31 Footprints of Iguanodon from the Hastings sands
Wealden fossils at BGS.

Belcher, Admiral Sir Edward (1799–1877)
30 September 1833 TGS(2) 2 Wood perforated by a Pholas

Benett, Miss Etheldred (1776–1845)
19 February 1813 TGS(1) 2 Siliceous petrifactions from Tisbury, Wiltshire
19 March 1813 TGS(1) 2 Organic remains from Hordwell Cliff, Hampshire *(Letter, G.B. Greenough to L. Horner, 11 March 1813, GSL Mus1/89)*
5 November 1813 TGS(1) 2 Organic remains from Wiltshire, Hampshire and Dorsetshire
18 March 1814 TGS(1) 2 Fossils from English Strata ‹According to the Waste Book this donation consisted of palaeontological material from (a) Portland, (b) the Chalk Marl, (c) the Chalk and (d) Greensand›
21 March 1815 TGS(1) 3 Specimen of the Elephant Bed, Brentford
21 March 1815 TGS(1) 3 Fossil organic remains from Weymouth
21 March 1815 TGS(1) 3 Fossil shells from Stifford, Essex 7 April 1815 TGS(1) 3 Recent shells
5 May 1815 TGS(1) 3 Organic remains ‹from Wiltshire› and sulphat [sic] of strontian ‹from Yate, Gloucestershire›
9 September 1815 TGS(1) 3 Specimens from Chicksgrove Quarry* and Warminster Common [Wiltshire]
15 March 1816 TGS(1) 3 Fossil Alcyonia from Warminster [Wiltshire]
15 March 1816 'MS only' Specimens and a section of Chicksgrove Quarry [Wiltshire]*
21 March 1817 TGS(1) 4 Specimens of the Greensand stratum from Boxham, one mile east of Warminster [Wiltshire]
11 May 1817 TGS(1) 4 Recent shells
3 April 1818 'MS only' Fossil organic remains ‹mostly from Wiltshire›
1 May 1818 'MS only' Impressions of vegatables on coal shale from Camerton near Bath ‹Mr Lambert considers the vegetables a Dicksonia›
19 March 1819 TGS(1) 5 Fossils from the Chalk and Greensand ‹of Wiltshire›
6 June 1819 TGS(1) 5 Fossil fish in chalk
29 October 1819 TGS(1) 5 Specimens ‹of sandstone and loam› from Chiltern Downs [Chitterne, Wiltshire]
1 May 1820 TGS(1) 5 Fossils and Recent shells
22 March 1821 TGS(1) 5 Fossils from English Strata and Recent shells
11 May 1822 TGS(2) 1 Fossils from Hordwell Cliff and Alum Bay [Hampshire and Isle of Wight]
1 May 1823 TGS(2) 1 Recent crabs and shells

28 May 1823 TGS(2) 1 Echinus in Flint, Southfleet [Kent]
4 April 1824 TGS(2) 2 Fossils from Chalk and Greensand
5 May 1824 TGS(2) 2 Eschara foliacea from Weymouth [Dorset]
20 May 1824 TGS(2) 2 Aphrodita aculeata and two Astreae from Swansea [W. Glamorgan]
7 December 1825 TGS(2) 2 Recent shells
5 May 1826 TGS(2) 2 Otion Cuvieri, Cineras vittata, and Lepas anatifera, from St Michaels
5 May 1826 TGS(2) 2 Anodonta Cygneus, Longleat, Wilts
19 February 1830 PGS 1 p. 178 A fine specimen of Cycadeoidae, a polished Septarium and several fossil and recent shells, from Weymouth [Dorset]
24 February 1831 TGS(2) 3 Casts of Hamites
27 April 1831 TGS(2) 3 and PGS 1 p.351 Fossils from Chalk, Greensand and Weymouth Beds
21 November 1831 TGS(2) 3 Mantellia from Portland [Dorset]
14 May 1833 TGS(2) 3 and PGS 2 p.28 Fossils from the Chalk of Wiltshire, and silicified wood from the Isle of Portland [Dorset]
May 1835 TGS(2) 4 and PGS 2 p.341 Silicified wood from the Portland Stone at Chicksgrove, Wilts*
14 May 1835 TGS(2) 4 and PGS 2 p.341 A fish from the Purbeck Beds ‹at Ladydown› in the Vale of Wardour [Wiltshire]
10 June 1835 TGS(2) 4 and PGS 2 p.341 Specimens from the Mountain Limestone near Frome [Somerset]
14 October 1835 TGS(2) 5 and PGS 2 p.341 Fossils from Blackdown [Devon] and Wiltshire
27 November 1835 TGS(2) 5 and PGS 2 p.341 Fossils from Blackdown [Devon] and Bognor [W.Sussex]
21 October 1837 TGS(2) 5 and PGS 2 p.608 Fossil from the Mountain Limestone, the Oolitic and Cretaceous Systems of England *(Letter, 4 August 1837, GSL Mus2/12)*
21 February 1840 PGS 3 p.195 Tiles from the Forest Marble and Purbeck slate of Ladydown [Wiltshire] (*Letter, 18 October 1839, GSL Mus2/31*)
19 February 1841 PGS 3 p.373 Bones of Recent mammalia from Portland, and Crinoidal remains from the Mountain Limestone near Frome [Somerset]
April 1842 TGS(2) 6 and PGS 4 p.49 Fossils from the Mountain Limestone of Whatley, Somerset, the Oolite of Tisbury [Wiltshire], &c.
1 June 1842 TGS(2) 6 and PGS 4 p.49 Fossils from the Greensand of Farringdon, and the Great Oolite of Cain's Cross, Gloucestershire; and specimens of Apiocrinites rotundus *(Letter, 16 April 1842, GSL LDGSL30.)*
17 February 1843 PGS 4 p.49 Fossils from the Chalk, Upper Greensand and Oxford Clay of Wiltshire [BGS]

* *Twenty five of Miss Bennet's rock specimens, at one-time part of the Geological Society of London Museum, are now in the Department of Mineralogy, BM(NH) numbered BM1985,P50 and illustrate a manuscript section of Chicksgrove Quarry. The Waste Book notes that palaeontological specimens from this locality were given to the Society in March 1814, September 1815 and March 1816.*
A large collection of fossils is held by BGS.

Bennet, the Rt. Hon. Henry Grey (1777–1836)
21 February 1812 TGS(1) 2 Specimens from Northumberland (Bennet, 1817)
19 February 1813 TGS(1) 2 Organic remains from Shropshire
19 March 1813 TGS(1) 2 Specimen of calcareous incrustation found in the pipe of a steam engine

31 January 1814 TGS(1) 2 Specimens from Northumberland and Roxboroughshire ‹and from Cheltenham›
18 March 1814 TGS(1) 2 Specimens from Northumberland
10 October 1814 TGS(1) 3 Specimens from Battle in Sussex
18 January 1816 TGS(1) 3 Specimens of native arsenical antimony
5 April 1816 TGS(1) 3 Recent shells
6 June 1817 TGS(1) 4 Fossils from the Stonesfield Slate
6 June 1819 TGS(1) 5 Specimens from Shropshire ‹and Dudley›
10 May 1820 TGS(1) 5 Specimen of Dudley limestone with an Entomolite [a trilobite]
16 November 1821 'MS only' Specmens from Jersey
Carboniferous, Jurassic, Cretaceous and Tertiary fossils exist at BGS.

Bennet, H. G., Lord Compton & G. B. Greenough
3 June 1814 TGS(1) 2 Specimens and organic remains from Stonesfield, Oxfordshire

Bensted, William Harding (1802–1873)
September 1838 'MS only' Lower Greensand sponges from Maidstone, Kent (*Letter W.H. Bensted to W.H. Fitton, 23 September 1838, GSL Mus 2/75*)
17 November 1838 TGS(2) 5 and PGS 3 p.46 Gryphaea sinuata, from the Lower Greensand
21 February 1845 PGS 4 p.534 Fossils from the Kentish Rag, Maidstone [Kent]
Cretaceous fossils at BGS.

Bentham, Captain J. [52nd Regiment]
23 June 1837 TGS(2) 5 and PGS 2 p. 608 Fossils from the Mountain Limestone in the Isle of Man *(Letter J. Bentham to W. Buckland, 24 May 1837, GSL Mus2/90)*
Carboniferous fossils at BGS.

Berger, Jean Francois (1779–1833)
2 December 1808 TGS(1) 1 Specimens from Leicestershire, Derbyshire, Westmoreland, Cumberland and Scotland *(Catalogue of various minerals, BMNHP Mss Geo 'Miscellaneous')*
6 April 1810 TGS(1) 1 Specimens from the counties of Cornwall and Devon* *(Letter, J. Berger to J. Laird 18 March 1810, GSL LDGSL28.* See also under Necker, and Berger (1811*a*))
1 June 1810 TGS(1) 1 Rocks of the island of Guernsey *(List of minerals, n.d., GSL LDGSL27/15)*
5 April 1811 TGS(1) 1 Specimens from the Isle of Wight, (Berger, 1811*b*)
19 April 1811 TGS(1) 1 Specimen from Isle of Purbeck and the Isle of Portland (Berger, 1811*b*)
1 November 1811 TGS(1) 2 Specimens from the Isle of Man (Berger, 1814) *(Catalogue of specimens [from Ireland] BMNHP Mss Geo 'Miscellaneous')*
* *Some twenty rock specimens from the Geological Society Museum, said to have been collected in the company of L. A. Necker, and illustrating a paper by Berger (1811a), are in the Department of Mineralogy, BM(NH) numbered BM1985,P58. Mineral specimens also exist corresponding to this donation. They are pyrolusite (BM1911,619–20) from Upton Pyne, Devon, and gilbertite (BM1911,621) from Stenna Gwynn, St Stephens, near St Austel, Cornwall.*

Berry, George [of Edinburgh]
2 May 1821 TGS(1) 5 Specimens from Scotland

Bevan, Benjamin
3 December 1813 TGS(1) 2 Strata and organic remains ‹from central England›
3 June 1814 TGS(1) 2 Fossil belemnites from Bosworth, Leicestershire
There are Jurassic and Cretaceous fossils at BGS.

Bigsby, John Jeremiah (1792–1881)
Fossils from Dorset, Devon and near Malvern, Hereford and Worcester exist at BGS

Bilton, Rev. William (1798–1883)
There are fossil plants from north Devon at BGS

Binfield, W. R. [of London]
20 February 1852 QJGS 8 Specimens of corals, Nautilus, ammonites etc., from the Silurian, Lias and Chalk
18 February 1853 QJGS 9 Specimens of Lias rocks from Gloucestershire
17 February 1854 QJGS 10 Fossil plants from the Cotswolds, fossil insects from Lyme Regis and fossils from Cheltenham, &c.
Jurassic fossils at BGS.

Messrs W. R., and H. Binfield
17 February 1854 QJGS 10 Fossil insects, plants and shells from the Wealden of Hastings (Binfield & Binfield, 1854)
Cretaceous fossils at BGS.

Binney, Edward William (1812–1881)
January 1839 'MS only' Columnar-jointed mudstone from near Manchester (*Letter, E. W. Binney to L. Horner, 15 February 1839, GSL Mus 1/197*)
20 February 1863 QJGS 19 Carboniferous rocks from Ayrshire (Binney, 1862)*
* *Eight rock specimens of the Ayrshire material survive in the Department of Mineralogy, BM(NH). Also, eleven rock specimens of Permo-Triassic rocks from the Manchester area, attributable to Binney on the basis of surviving labels, are extant. These are now numbered BM1985,P49 and 1985,P53 respectively.*
Permian and Jurassic fossils are at BGS.

Birkett, Rev. T.
17 January 1838 TGS(2) 5 and PGS 2 p. 608 Vertebra of a Plesiosaurus from Terry's Pit, Hasely Mill, Oxfordshire; with a fragment of a stag's horn from the same locality

The Birmingham Institution
Deeember 1840 TGS(2) 6 Cast of the head of Ichthyosaurus communis, in the Birmingham Institution

Black, Dr James (1788–1867)
Triassic and Coal Measures fossils from Lancashire at BGS

Black, W. T. [Staff-surgeon, London]
28 February 1866 'MS only' Fourteen miscellaneous rock specimens from various localities

Blackburn, Edward Berens (c1788–1839)
31 October 1817 TGS(1) 5 Fossils from the Breadon Hills

Blake, William (1773/4–1852)
4 Mareh 1814 TGS(1) 2 Specimens from Petworth [West Sussex] and Mt. Sorrell [Leicestershire]

Bland, Michael (1776/7–1851)
2 April 1819 TGS(1) 5 Calcareous stalactites ‹found in a vault in Whitbread's brewhouse that has been shut 12 years›
(Letter, 2 April 1819, GSL Mus1/90)

Bland, Thomas (d.1889)
18 February 1853 QJGS 9 2 Specimens of Phillipsia from Derbyshire
Carboniferous fossils at BGS.

Bland, William (1788–1869)
6 May 1841 TGS(2) 6 and PGS 3 p. 620 Remains of the mammoth found in a gravel-pit in the parish of Newington, near Sittingbourne [Kent]

Blandford, William Thomas (1832–1905)
Recent shells at BGS

Blizard, Sir William (1743–1835)
30 April 1833 TGS(2) 3 and PGS 2 p. 28 Part of a basaltic column from the Giant's Causeway [Antrim]

Bogg, Edward (1743–1835)
12 January 1816 TGS(1) 3 Specimens in illustration of Mr Bogg's paper on the strata of Lincolnshire (Bogg, 1816)
Jurassic fossils at BGS.

Bonney, F.
15 June 1837 TGS(2) 5 and PGS 2 p. 608 Ammonites lewesiensis, from Shakespeare's Cliff, Dover [Kent]

Bostock, Dr John (1773–1846)
16 June 1823 TGS(2) 1 Pebbles from the bed of clay which covers the New Red Sandstone in the South-West of Lancashire (Bostock, 1826)
6 March 1825 TGS(2) 2 Specimens from the vitrified fort, Craig Phadric, near Inverness, and a specimen from the basaltic columns at Ulva in the Hebrides
16 March 1832 TGS(2) 3 and PGS 1 p. 427 A slab of Dudley Limestone

Botfield, Sir Thomas (1762–1843)
23 January 1815 TGS(1) 2 Slag from a furnace
5 May 1824 TGS(2) 2 Fossil bones found in the fissures of a sandstone rock at the Hinck's Hay near the Old Park Iron Works, Dawley, Shropshire ‹They were 150′ from the original face of the rock and 22′ from the surface›
6 May 1841 TGS(2) 6 & 18 February 1842 PGS 3 p.620 Specimens from the Clee Hill Coalwork, Shropshire
Carboniferous fossils at BGS.

Bowerbank, James Scott (1797–1877)
21 February 1840 PGS 3 p. 195 Specimens of Venericardia planicosta and of Nummulites from the London Clay (Bowerbank, 1839)
19 February 1841 PGS 3 p. 373 Fossils from Bracklesham Bay [W. Sussex]
15 February 1867 QJGS 23 Slab of Kelloway rock with belemnites; specimen of Crioceras bowerbanki
Tertiary fossils at BGS.

Bowman, John Eddowes (1785–1841)
Coal Measure fossils from Bradford at BGS

Braddick, John (c1765–1828)
1 June 1827 TGS(2) 2 and PGS 1 p. 47 Fossil bones of the Hyaena and other animals, found in a cave near Maidstone [Kent]
Pleistocene fossils at BGS.

Brady, Henry Bowman (1835–1891)
16 February 1866 QJGS 22 Siliceous casts of corals from the Carboniferous Limestone near Dublin

Bravender, John (d.1877)
17 February 1860 QJGS 16 Echinidae from the Upper Oolite of Gloucestershire

Breton, Lieut. William Henry (1798/9–1887)
18 February 1860 QJGS 15 Acrodus teeth from the Lias
Jurassic fossils at BGS.

Brickenden, Captain Richard Thomas William Lambart (1809–1900)
21 February 1855 QJGS 11 Slab of stone with footprints, from the Old Red Sandstone of Elgin* [Scotland]
* *Six specimens of boulder clay from Elgin, at one-time part of the Geological Society's Museum and attributable to L. Brickendon on the basis of secondary labels, are now numbered BM1985,P54. There is also a boulder clay and some twenty rock specimens from Linksfield, Elgin, illustrating a paper by Brickenden (1851)*

Bright, Benjamin Heywood (1787–1843)
February 1841 TGS(2) 6 & 18 February 1842 PGS 3 p. 620 Specimens of Meiomite from the Magnesian Limestone Conglomerate of Ham Green [Bristol] *(Letter, 17 February 1841, GSL Mus2/68)*

Bright, E. A.
6 January 1846 'MS only' Calamites pachyderma and other coal plants from Gladwick Colliery, Oldham ‹Wastebook 23821 etc.›

Bright, Richard (1789–1858)
February 1811 'MS only' Specimens from a vitrified fort in Rossshire, Scotland (*Letter, R. Bright to L. Horner, 15 February 1811, GSL Mus 1/197*)
15 February 1811 TGS(1) 1 Specimens from the neighbourhood of Liverpool
1 November 1811 TGS(1) 2 Specimens from the neighbourhood of Bristol*
* *Four one-time Geological Society Museum rock specimens from the Bristol-Portishead area are now in the Department of Mineralogy, numbered BM 1985, P51. See Bright (1817) and Kark & Moore (1981: 135–6). Triassic and Carboniferous fossils at BGS.*

British Natural History Society
20 February 1852 QJGS 8 24 glazed tablets, containing examples of Eulima, Rissoa, Marginella, and of other genera from the Hampshire Eocene deposits, with lithographs of the same magnified
Tertiary fossils at BGS.

British Natural History Society and Edward Charlesworth
20 February 1852 QJGS 8 74 specimens of fossils from the Barton Beds
Tertiary fossils at BGS.

Brochant de Villiers, Andre Jean Francois Marie (1772–1840), and H. Warburton
26 June 1823 TGS(2) 1 Crystallized sulphate of barytes from Fuller's Earth, Nutfield [Surrey]

Broderip, W. J., Earl of Enniskillen, H. Warburton, R. I. Murchison, Sir P. Egerton and C. Stokes, see under Warburton

Brodie, Peter Bellinger (1815–1897)
January 1842 TGS(2) 6 & 18 February 1842 PGS 3 p. 622 Fossil plants from the Plastic Clay, Bournemouth, Hants (Brodie, 1842) *(Letters from P. B. Brodie to W. Lonsdale, 27 November and 7 December 1841, GSL Mus2/46 98)*
17 February 1843 PGS 4 p. 50 Remains of insects and other fossils from the Lower Lias near Cheltenham
16 February 1849 QJGS 5 Fossils from the Lias and Oolite near Cheltenham
15 February 1850 QJGS 6 Plants from the Keuper Sandstone of Longdon, near Tewkesbury, and of a coral from the Lower Oolite near Cheltenham (Brodie, 1850)

17 February 1854 QJGS 10 Specimen of Lias rock with nummulites, from Fretherne Cliff, Gloucestershire
20 February 1857 QJGS 13 Specimens from the Keuper of Warwickshire
15 February 1861 QJGS 17 Specimens of corals from the Lias (see also below)
21 February 1862 QJGS 18 Specimens of corals from the Lias (see also above)
17 February 1865 QJGS 21 Specimens of Montlivaltia haimei, and Montlivaltia sp., from the Lower Lias, Warwickshire
Triassic, Jurassic and Tertiary fossils at BGS.

Brodie, W. R. [of Swanage]
15 February 1856 QJGS 12 Fossil leaves from Studland, Dorset
Cretaceous and Tertiary fossils at BGS.

Brooke, Charles
3 August 1820 TGS(1) 5 Fossil shell from the Lias

Brooke, Henry James (1771–1857)
5 November 1817 TGS(1) 5 Specimens from Haldon Hill [Devon]
20 February 1818 TGS(1) 5 Amethystine quartz, Cornwall
17 April 1818 TGS(1) 5 Simple minerals*
14 December 1818 TGS(1) 5 Specimens of simple minerals and rocks ‹mostly from Scotland›
16 April 1819 TGS(1) 5 Freshwater and marine Recent shells; Wood and stream tin
8 January 1820 TGS(1) 5 Simple minerals and fossils ‹from southern England›
12 April 1820 TGS(1) 5 Specimens from English strata
6 April 1827 TGS(2) 2 Fossil coral from Torquay [Devon]
* *According to the Department of Mineralogy, records, a specimen of fluorite (now BM1911,553) from Beer Alston, Devon, was donated to the Geological Society in 'January 1818'.*
Carboniferous, Jurassic and Tertiary fossils at BGS.

Brooke, H. J. and W. Somerville. See Somerville

Brown, G. H.
1 April 1824 'MS only' Specimens brought up in digging a well at Streatham [south London]

Brown, H.
26 June 1823 'MS only' Fossil shells from the Crag Pits, Suffolk

Brown, John (1780–1859)
17 September 1830 TGS(2) 3 and PGS 1 p.261 Specimens from gravel and from a brickyard near Colchester [Essex]*
1 November 1835 TGS(2) 5 and PGS 2 p. 342 Specimens from the gravel of Bollingdon [Ballingdon] Hill, Essex* *(Letter J. Brown to W. Lonsdale, 3 November 1835, GSL Mus1/103)*
17 February 1837 PGS 2 p. 464 Remains of the Elephant, &c. from Bollingdon Hill, Essex *(Letter, J. Brown to W. Lonsdale, 3 May 1836, GSL LR2/123)*
21 March 1837 TGS(2) 5 Specimens from the Crag of Suffolk *(Letter, J. Brown to W. Lonsdale, 13 March 1837, GSL LR3/29)*
16 February 1838 PGS 2 p. 607 Specimens from the Crag of Norfolk
17 February 1843 PGS 4 p. 50 Land and freshwater shells from the Pleistocene deposit at Copford, near Colchester [Essex]*
15 February 1856 QJGS 12 Fossil freshwater shells from Fisherton, near Salisbury
* *Rock specimens from the Geological Society Museum from Copford, attributable on the*

basis of original labels to J. Brown, and from Ballingdon, are now in the Department of Mineralogy, numbered 1985,P56. This is probably the material mentioned in Brown (1836: 42–6) and Brown (1852: 84–193).
Cretaceous and Quaternary fossils at BGS.

Brown, Dr
1820s 'MS only' minerals from Scotland (*List of 92 minerals from Scotland, GSL Mus1*)

Bryce, James (1806–1877)
31 December 1873 'MS only' Mesozoic fossils from Skye and Raasay [Scotland]

Buckland, Rev. William (1784–1856), Dean of Westminster from 1845
5 June 1812 TGS(1) 2 Large fossil vertebra from Dry Sandford, Berkshire
23 April 1813 TGS(1) 2 Chalcedony from Charmouth [Dorset]
17 December 1813 TGS(1) 2 Specimens from Lauren Hill, Galloway
17 March 1815 TGS(1) 3 Fossil tooth of a crocodile from Stonesfield [Oxfordshire]
21 March 1815 TGS(1) 3 Specimens from Reading [Berkshire]*
21 March 1815 TGS(1) 3 Specimens of English Strata ‹from the Welsh Borders›
21 March 1815 TGS(1) 3 Specimens from the neighbourhood of Dufton [Cumbria] (Buckland, 1817*a*)
3 November 1815 TGS(1) 3 Slab of marble from Chudleigh, Devonshire
5 January 1816 TGS(1) 3 Plastic Clay from Reading* (Buckland, 1817*b*)
1 May 1816 TGS(1) 3 A scarce variety of Lyas, near Lyme [Regis, Dorset]
31 October 1817 TGS(1) 5 Part of a deer's horn found in gravel ‹pits at Chalham, 1 mile SE of Abingdon, Berks, in May 1817. At the same time and place were found fragments of 14 stags horns and the thigh bone and part of the head of an enormous elephant, also teeth of the deer, horse, ox and other bones; all of which are in the Ashmolean Museum, Oxford›
3 April 1818 TGS(1) 5 Fossils from Gibraltar Quarries, Woodstock [Oxfordshire]
1 May 1818 TGS(1) 5 Horns of deer found at Mundesley on the coast of Norfolk
5 June 1818 TGS(1) 5 Specimens from the neighbourhood of Bristol
19 June 1818 TGS(1) 5 Simple minerals
4 December 1818 TGS(1) 5 Specimens of English Strata
14 December 1818 TGS(1) 5 Tufa formed on moss, ‹Stanton St. John› Oxfordshire
22 December 1818 TGS(1) 5 Chert of the Greensand passing into heliotrope
26 April 1819 TGS(1) 5 Arragonite found in the Inferior Oolite at Osmington [Mills, Dorset]*
9 November 1820 TGS(1) 5 Rhinoceros skull ‹and thigh bone› from Kings Newnam, near Lawford church, in Warwickshire*
14 May 1821 TGS(1) 5 Ammonite from ‹the Blue Lyas› Lyme Regis
7 August 1822 TGS(1) 2 Specimen from Lyme, with stems of Pentacrinites
2 March 1824 TGS(2) 2 Specimens from the diluvial gravel at Abingdon [Oxfordshire]
24 April 1824 TGS(2) 2 Fossil shell from the Oxford clay, and a pebble from the diluvial gravel, Oxford
16 December 1824 TGS(2) 2 English rocks (*List of specimens presented by Prof. Buckland, GSL Mus1/123*)
18 February 1825 TGS(2) 2 Specimen of a breccia resembling that of Gibraltar, found in a fissure in the limestone rock at Chudleigh [Devon]
20 February 1825 TGS(2) 2 Specimens of Transition Limestone from Nether Stowey [Somerset]
20 March 1828 TGS(2) 2 & 20 February 1829 PGS 1 p. 106 A pair of antlers of the Irish Stag (given as Irish Elk in the PGS, see below)
5 December 1828 TGS(2) 2 A pair of antlers of the Irish Stag

29 April 1829 'MS only' Slab containing nigrum graecum
16 June 1829 TGS(2) 3 and PGS 1 p. 177 Cast of the toe of the Iguanodon from Sandown Bay, Isle of Wight
15 January 1830 TGS(2) 3 A crystal of selenite from Shotover [Oxfordshire]
19 February 1830 PGS 1 p.177 A slate containing coprolites from the Lias
25 May 1831 TGS(2) 3 and PGS 1 p. 351 Casts of coprolites from the Chalk, and cast of the jaw of Megalosaurus
1 August 1831 TGS(2) 3 and PGS 1 p. 351 Coprolites from Lyme Regis
28 November 1831 TGS(2) 3 and PGS 1 p. 351 Six specimens of Mantellia ‹from Portland›
1 July 1833 TGS(2) 4 and PGS 2 p. 28 Agate nodules from the Magnesian Limestone in the Mendips* (Buckland, 1835) and copper slags from Swansea
22 January 1834 TGS(2) 4 Casts of perforations by Teredina personata from Plastic Clay, Hengisbury, Hants
21 February 1834 PGS 2 p.28 Fossils from the neighbourhood of Weymouth (Partly reported later, see the donation below)
14 April 1834 TGS(2) and PGS 2 p. 129 Septaria from the London Clay at Brixton and fossil wood perforated by Teredina personata from the Plastic Clay at Hengistbury Head, Hants (see also the donation above)
5 November 1834 TGS(2) 4 & 20 February 1835 PGS 2 p.129 Cast of a palatal tooth from the Chalk of Dorsetshire
21 March 1838 TGS(2) 5 & 15 February 1839 PGS 3 p. 45 A mass of Ostrea gregarea from near Oxford
19 February 1841 PGS 3 p. 373 A specimen of Ammonites bucklandii; a slab of Lower Green Sand, containing remains of corals and sponges, from Coxwell Pits, near Farringdon; and specimens of polished and striated boulders from the neighbourhood of Glasgow
28 June 1841 TGS(2) 6 and PGS 3 p 621 Specimens from the neighbourhood of Ilfracombe; from the Diluvium of Norfolk; a slab of sandstone with impressions of footsteps, from Storton [Merseyside]
15 February 1850 QJGS 6 Slab from the Isle of Arran in the Bay of Galway *(Letter, 2 August 1849, GSL LR11/115)*

* *A specimen of aragonite from Osmington Mills is now BM1911,581. Surviving Buckland rock specimens include (i) rocks from the Reading area (BM1985,P60), (ii) rocks from Addleston/Chertsey (Surrey, now BM1985,P63), (iii) material from Cardiff and other localities in Glamorgan (BM1985,P64), (iv) specimens from Blackheath (London, now BM1985,P65), (v) a polished slab from Lyme Regis, Dorset (BM1985,P61), (vi) twenty specimens of agates from the Mendip Hills (Buckland, 1835; now BM1985,P59), and (vii) rocks illustrating a paper on a fossil fish locality (Buckland, 1838). These specimens are now in the Department of Mineralogy, BM(NH). A large collection of fossils is held at BGS. The rhinoceros skull from King Newnam is still held by the Society in Burlington House.*

Rev W. Buckland and J. J. Conybeare. See Conybeare, J. J.

Rev W. Buckland and Rev W. D. Conybeare
7 June 1816 TGS(1) 3 A series of specimens from the neighbourhood of Oxford

Rev. W. Buckland and H. T. De La Beche
30 April 1833 TGS(2) 3 Fossils from the neighbourhood of Weymouth (Buckland & De La Beche, 1835) [Large collection at BGS]

Rev W. Buckland and R. I. Murchison
16 February 1844 PGS 4 pp. 341–2 Fossils from the Lower Greensand and Weald Clay at their junction, Redhill, near Reigate [Surrey]

Rev. W. Buckland and J. Yates
14 December 1836 TGS(2) 5 and 17 February 1837 PGS 2 p. 464 Specimen of a fossil tree at Allesley, Warwickshire, and of the New Red Sandstone in which it was found (Also reported in PGS 2 p. 464, 17 February 1837) (Buckland, 1837)

Buckman, James (1814–1884)
Fossils from the Jurassic of Dumbleton, Gloucestershire, at BGS

Bullock, William (d.1849)
29 November 1824 TGS(2) 2 Specimens of the rock of the Isle of St Kilda, Hebrides
1 May 1825 TGS(2) 2 Fossil wood and rocks bored by Pholas

Bunbury, Charles James Fox (1809–1886)
Jurassic fossil plants from Gristhorpe, N.Yorkshire, at BGS (Bunbury, 1851)

Bunbury, Edward Herbert (1811–1895)
6 May 1841 TGS(2) 6 Specimens from the Inferior Oolite, Burton, near Bridport (Also reported on 2 February 1842 TGS(2) 6 and PGS 3 p. 620)
April 1842 TGS(2) 6 A vertebra of an Ichthyolite ‹Ptychodus› from the Lower Chalk, Maidstone [Kent]
17 February 1843 PGS 4 p.49 Fossils from the Kelloway Rock of Wiltshire, and Inferior Oolite of Burton, near Bridport
21 February 1845 PGS 4 p. 534 Hippurite and specimens of Beryx radians from the Chalk of Kent
16 February 1849 QJGS 5 Specimen of Pentacrinite
Jurassic, Cretaceous and Tertiary fossils at BGS›

Bunbury, Sir Henry Edward (1778–1860)
8 July 1822 TGS(2) 1 Specimens from the neighbourhood of Milden Hall, Suffolk (Bunbury, 1824)

Burton, Decimus (1800–1881)
30 August 1837 TGS(2) 5 and PGS 2 p. 608 A stag's horn from the Preston and Wyre railway, Lancashire

Caldcleugh, Alexander (d.1858)
26 June 1823 TGS(2) 1 Equiaxe carbonate of lime and magnesian carbonate of lime
29 January 1831 TGS(2) 3 A plate of brown mica

Callaway, Dr Charles (1838–1915)
21 February 1879 QJGS 35 A series of rock specimens to illustrate a paper on the Precambrian rocks of Shropshire (Callaway, 1878)

Card, George
16 February 1844 PGS 4 p. 343 Plagiostoma? spinosum from the Chalk and teeth of the Rhinoceros and Equus from a brickfield near Salisbury *(Letter, 20 September 1843, GSL LR8/37)*
Pleistocene fossils at BGS.

Cawdor, John Frederick Campbell, 1st Earl of (1790–1860)
5 December 1835 TGS(2) 5 and PGS 2 p. 342 of 19 February 1836 Fossils from the Limestone Shale of Pembrokeshire *(Letter, 4 December 1835, GSL LR2/25)*
20 January 1836 TGS(2) 5 Fossils from the Lower Limestone Shale and the Upper Silurian beds of Pembroke *(Letter, Lord Cawdor to W. Lonsdale, 2 January 1836. GSL Mus1/129)*
Carboniferous fossils at BGS.

Cazalet, Mrs
17 February 1826 TGS(2) 2 and PGS 1 p. 15 Bones from Kent's Hole, Torquay [Devon]
6 April 1827 TGS(2) 2 Recent and fossil corals from Torquay*; Bovey coal*
6 April 1827 MS only Breccia and bones from Kent's Hole, Torquay [Devon]
* *A specimen of Bovey Coal is now in the Department of Mineralogy, BM(NH). Pleistocene fossils are at BGS.*

Chambers, Robert (1802–1871)
17 February 1854 QJGS 10 Boulders from Scotland &c.
Pleistocene fossils at BGS.

Champernowne, Arthur (1767–1819)
3 April 1812 TGS(1) 2 Specimens of slickenside
19 February 1813 TGS(1) 2 Crystallized feldspar and ‹an impression of a fish in› bituminous Marle Slate
1 December 1815 TGS(1) 3 Oxide of uranium on pech blende [pitchblende]
5 April 1816 TGS(1) 3 Pech blende [pitchblende]

Champernowne, Arthur junr. (1839–1887)
15 February 1878 QJGS 34 Twenty four specimens of Stromatopora etc., from the Great Devon[ian] Limestone, Dartington (Champernowne, 1879)
Devonian fossils at BGS.

Chantrey, Sir Francis Legatt (1781–1842)
6 December 1822 TGS(2) 1 Cast of the underjaw of the Plesiosaurus in the possession of H. T. De La Beche Esq.
19 March 1824 TGS(2) 2 Impressions of plants from the Coal Measures near Sheffield
1 April 1824 TGS(2) 2 Fossil plants from the Sheffield coalfield
16 March 1832 TGS(2) 3 and 15 February 1833 PGS 1 p.427 Cast of the Duke of Buckingham's Plesiosaurus ‹Plesiosaurus dolicodeirus›
Carboniferous fossils at BGS.

Chapman, Thomas [FGS of London]
3 May 1841 TGS(2) 6 and PGS 3 p. 620 Chalk flints from Great Hollingbury, Essex

Charlesworth, Edward (1813–1893)
21 January 1835 TGS(2) 4 and 20 February 1835 PGS 2 p. 131 Shells and bones of Mammalia from ‹the freshwater deposit at› Sutton, Suffolk, and a specimen of the calcareous nodules accompanying the shells *(Letter, E. Charlesworth to G. Greenough, January 1836. GSL Mus1/132)*
23 February 1836 TGS(2) 5 and PGS 2 p. 463 Large fragment of bone from the base of the diluvial cliffs near Southwold, Suffolk
23 May 1836 TGS(2) 5 and PGS 2 p. 463 Specimens from the Crag
21 February 1845 PGS 4 p. 534 Specimens of several species of Astarte from the Pliocene of Bridlington [Humberside]
16 February 1877 QJGS 33 Cast of a molar tooth of a species of the genus Hyaenarctos of Falconer. From the Red Crag of the Felixstow District, Suffolk. The original is in the cabinet of William Reed, York
Cretaceous, Tertiary and Quaternary fossils at BGS.

Charlesworth, E. and the British Natural History Society. See British Natural History Society

Children, John George (1777–1852)
20 December 1811 TGS(1) 2 Witherite from Merton Fell, Westmoreland

Clarke, Thomas (junr.)
6 February 1823 TGS(2) 1 Head of the Plesiosaurus, figured in plate xix, Part 1, Vol 1 2nd series of the TGS (Conybeare, 1822)

Clarke, William Branwhite (1798–1878)
19 February 1830 PGS 1 p. 178 Galena from Alston Moor in Cumberland *(Letter, 2 November 1829, GSL Mus1/63)*
21 June 1849 'MS only' Cast of rhinoceros tooth from Red Crag at Felixstow, Suffolk, and two casts of antlers of deer from ditto
Pleistocene fossils at BGS.

Clarke, Miss
15 April 1822 TGS(2) 1 Fossil palate from a Chalk pit near Leatherhead [Surrey]

Clayfield, William [of Bristol]
5 June 1818 TGS(1) 5 Crystallized witherite ‹from Shropshire›*
* *The witherite specimen from Minsterley, Salop, is now BM1911,589. A specimen of calcite from the same locality, and donated at the same time, is BM1911,567*

Clegg, S.
Fossils from the Barton Beds of Barton, Hampshire, at BGS

Cleghorn, John
Fossils from the Pleistocene of Caithness at BGS (Cleghorn, 1851)

Clerk, Thomas Henry Shadwell (1792–1849)
Carboniferous Limestone fossils from County Cork, Ireland, at BGS

Clift, William (1775–1849)
6 December 1822 TGS(2) 1 Fossils bones ‹and other substances from the caverns discovered by Mr Whitby› in the Limestone Quarries at Oreston near Plymouth
Pleistocene fossils at BGS.

Clissold, F.
16 June 1820 TGS(1) 5 Specimens from the top of Snowdon with fossil shells

Colby, Captain Thomas Frederick (1784–1852)
19 December 1817 TGS(1) 5 Nodules of clay iron-stone found at the bottom of the London Clay

Cole, Robert [?FGS]
9 May 1838 TGS(2) 5 Specimens from Guernsey

Cole, William Willoughby, Lord, see Enniskillen, Earl of

Colebrooke, Henry Thomas (1765–1837)
4 December 1818 TGS(1) 5 Greywacke slate with Terebratulae from north Wales
26 June 1823 TGS(2) 1 Fossils from Scarborough [N.Yorksbire]

Colling, J. W.
7 January 1832 TGS(2) 3 A fossil fish from the Magnesian Limestone
3 June 1834 TGS(2) 4 and PGS 2 p. 130 A fossil fish from the Magnesian Limestone

Collins, Joseph Henry (1841–1916)
3 December 1884 'MS only' Specimens illustrating the paper on the serpentine of Portballa Cove [Portballow, Cornwall] (Collins, 1884)

Compton, Spencer Joshua Alwyne (Earl Compton) see Northampton, 2nd Marquis of

Lord Compton, H. G. Bennet and G. B. Greenough, see under Bennet

Condamine, H. M. De la, see De la Condamine, H. M.

Conybeare, Rev. John Josiah (1779–1824)
April 1812 'MS' only Silicified fossils from Dunraven, Glamorgan (*Letter, 3 April 1812, GSL Mus1/43 & 102*)
23 April 1813 TGS(1) 2 Slate with organic remains, from Tintagel, Cornwall (Conybeare, 1817b)
17 December 1813 TGS(1) 2 Specimens from Cornwall* (Conybeare 1817a)
6 June 1822 TGS(2) 1 Specimens of various rocks fused by a Furnace
13 June 1822 TGS(2) 1 Wood undergoing the process of petrification, from an old Wall ‹'this is only a stalactite'›
9 September 1822 TGS(2) 1 Specimens of recent petrified wood
* *Former Geological Society Museum specimens of siderite (BM1911,578) and goethite (BM1911,579) are connected with this donation. They are noted in the BM(NH) registers as being from Wheal Prince, Camelford, Cornwall*

Conybeare, Rev. J. J. and Rev. W. Buckland
4 December 1812 TGS(1) 2 Specimens from Cornwall (Conybeare, 1817a) *(Letter, J. J. Conybeare to G. B. Greenough, July 1812, GSL LDGSL28)*
15 January 1813 TGS(1) 2 Specimens from Cornwall (Conybeare 1817a)
19 February 1813 TGS (1) 2 Specimens from Cornwall (Conybeare, 1817a)

Conybeare, Rev. William Daniel (1787–1857)
1 May 1828 'MS only' Casts of bones of fossil crocodiles (Also reported in TGS(2) 2 on 13 March 1829 and PGS 1 p. 106, 20 February 1829) (Conybeare, 1822)
Jurassic fossils at BGS.

Conybeare, W. D. and Buckland, W. See Buckland & Conybeare

Cook, Rev. James (?d.1872)
12 August 1831 TGS(2) 3 An orthoceratite from the limestone at Newton-on-the-Moor, near Felton [Northumberland] (Also reported in PGS 1 p. 352, 17 February 1832)

Cook, Dr
Fossils from the Crag, Suffok, at BGS.

Cooke, Rev. Robert Bryan (1800/1–after 1865)
29 June 1824 TGS(2) 2 Impressions of vegetables ‹in coal shale and gritstone› from near Hemsford and Bradford, Doncaster, Yorkshire
Carboniferous fossils at BGS.

Cooke, Rev. George (d.1840)
Silurian fossils from Pyrton and Tortworth, Avon, at BGS.

Cooper, John Thomas
4 November 1817 TGS(1) 5 Uranite from Cornwall and crystallized phosphate of iron from ditto
21 March 1819 TGS(1) 5 Fluor from Cornwall

Corbet, Richard
15 February 1850 QJGS 6 Plagiostoma, from the Lias near Adderley, Cheshire, and bone of deer from peat bog

Corrie, Dr John R. (d.1844)
1 May 1834 TGS(2) 4 Specimens of Rowley Rag, unaltered, decomposed and fused (Also reported PGS 2 p. 130, 20 February 1835)

Coulston, Rev. M. R. and Dr Malcolmson*
19 February 1841 PGS 3 p.373 Specimens of Old Red Sandstone, and of Fishes and Ores from the same formation, obtained in the Orkneys
* *Probably J.G. Malcomson (1802–1844) (cf. Moore, 1982a*, note 33)

Crawhall, Thomas (1787/8–1833)
6 December 1811 TGS(1) 2 Specimens from Allonheads, Alston Moor [Cumbria]

Creed, Richard
16 November 1836 TGS(2) 5 Fossil wood found in rounded boulders of Cornbrash at the summit of the Blisworth Ridge, Northamptonshire (Also reported in PGS 2 p.464, 17 February 1837)

Crichton, Sir Alexander (1763–1856)
14 March 1822 TGS(2) 1 Fossil shells from Tunbridge Wells (Crichton, 1822)
21 January 1825 TGS(2) 2 Simple minerals
5 November 1828 TGS(2) 2 Specimens of rocks, fossils &c. (Also reported in PGS 1 p. 106, 20 February 1829)
16 June 1830 TGS(2) 3 Fossils from the Lower Greensand of England

Crocker, E.
1 February 1833 TGS(2) 3 Fossil wood from the Lower Greensand, Apsley Wood near Woburn (Also reported in PGS 1 p. 427, 15 February 1833)

Croker, Dr John Gifford (d.1859/60)
November 1828 'MS' only Trap from Devon (*Letter, 25 Nov 1818, GSL Mus1/12*)
15 February 1856 QJGS 12 Lignite and rock-specimens from Bovey Tracey, Devon (Crocker, 1856)
Tertiary fossils at BGS.

Cross, Rev. John Edward (1821–1897)
19 February 1875 QJGS 31 Fossils from the Jurassic deposits of N.W. Lincolnshire (Cross, 1875)
Jurassic fossils at BGS.

Crow, E.
28 June 1841 TGS(2) 6 Cucullaea decussata found at Nash Court near Faversham [Kent] (Also reported in PGS 3 p. 621, 18 February 1842)
Tertiary fossils at BGS.

Culley, Matthew (1786–1834)
4 June 1822 TGS(2) 1 Specimens from Northumberland
28 December 1825 TGS(2) 2 Rocks and fossils from Sutherlandshire (See Murchison, 1827: 314)
16 February 1827 PGS 1 p. 15 Specimens chiefly of primitive rocks, from Sutherland, N. Britain*
* *Four rock specimens, at one-time in the Geological Society Museum, and from Sutherland, are now in the Department of Mineralogy, BM(NH), numbered BM1985,P69.*

Cumberland, George (1752–1848)
4 May 1810 TGS(1) 1 Specimens from the sandstone strata in the New Cut for the River Avon at Bristol
1 November 1811 TGS(1) 2 Toad-stone etc. from Micklewood, Gloucestershire (Cumberland, 1817*a*)
6 November 1812 TGS(1) 2 Specimens from Bristol (Bright, 1817; Cumberland, 1821; Kark & Moore, 1982). (?*Letter, G. Cumberland to L. Horner, n.d., GSL Mus1/62)*

19 November 1813 TGS(1) 2 Fossil wood from the Isle of Portland
10 May 1814 TGS(1) 2 Sulphate of strontian, from Bristol (*Letter, G. Cumberland, [May, 1814], GSL Mus 1/136*)
9 September 1815 TGS(1) 3 Fossil organic remains from Weston- super-Mare ‹supposed by Mr Cumberland to be a species of cane› (Cumberland, 1817*b*)
7 June 1816 TGS(1) 3 Fossil organic remains from the Hotwells, Bristol ‹called by Mr Cumberland a coralloid›
19 December 1817 TGS(1) 5 Calcareous spar and sulphate of strontian ‹from near Clifton, Bristol›
1 May 1818 TGS(1) 5 Specimens from the vicinity of Bristol (Bright, 1817; Cumberland, 1821; Kark & Moore, 1982. *Letter, 16 April 1818, GSL Mus1/41)*
5 June 1818 TGS(1) 5 Fossils from Feltrim Quarry near Dublin
6 November 1818 TGS(1) 5 Specimens illustrative of a comparison between the limestone of Glyddon Hill, near Much Wenlock in Shropshire, and that of Townhope, near Hereford *(Letter, October 1818, GSL Mus1/42)*
4 December 1818 TGS(1) 5 Fossils from the Chalk near Lewes, Sussex
13 June 1822 TGS(2) 1 Specimens from Stinchcombe, near Dursley [Gloucestershire] (Cumberland, 1824)
19 September 1822 TGS(2) 1 Quartzose sandstone from the neighbourhood of Bristol*
May 1835 TGS(2) 4 Specimens from the Pennant Grit and Dolomitic Conglomerate near Bristol (Also reported in PGS 2 p.341, 19 February
1836). *(Letter, G. Cumberland to W. Lonsdale, 13 January 1835, GSL Mus2/79)*

* *A former Geological Society Museum specimen, probably corresponding to this donation, is now in the Department of Mineralogy, BM(NH). Carboniferous and Jurassic fossils are at BGS.*

Cumberland, George, junr. (fl.1804–1849)
17 November 1838 TGS(2) 5 Fossil Pinnas from Honey Pen Hill, near Bristol (Also reported in PGS 3 p.46, 15 February 1839)

Cumby, William P.
6 November 1833 TGS(2) 4 Fishes from the Magnesian Limestone, Thickley

Cuming, R.
6 October 1835 TGS(2) 5 Fossils and flints from the Chalk

Cumming, Rev. Professor James (1777–1861)
7 February 1820 TGS(1) 5 Slickenside of blende from the Crumford Moor Mine, near Matlock [Derbyshire]*

* *The specimen of sphalerite from Cromford Mine, Matlock, Derbyshire, is now BM1911,546.*

Cumming, Lady E. M. Gordon, see Gordon-Cumming, Lady

Cumming, Rev. Joseph George (1812–1868)
19 February 1847 QJGS 3 Carboniferous Limestone fossils and rock specimens from the Isle of Man (Cumming, 1846) [BGS]
Devonian, Carboniferous and Pleistocene fossils at BGS.

Cunnington, William (1813–1906)
16 February 1844 PGS 4 p. 342 Fossils from the Coral Rag, Oxford Clay and Cornbrash of Wiltshire
Jurassic fossils at BGS.

Dan, Mr
Fossils from the Silurian of Corton, near Presteigne, Powis, at BGS

Danby, William (1752–1835)
19 December 1817 TGS(1) 5 Specimens of Magnesian Limestone
April 1818 'MS' only Mineral and rocks from the neighbourhood of Bristol (*Letter, W. Danby to C. Stokes, 25 April 1818, GSL Mus1/69*)
12 March 1821 TGS(1) 5 Specimens of Magnesian Limestone and other English strata
2 May 1821 TGS(1) 5 Specimens from the neighbourhood of Bristol; specimens of Mountain & Magnesian Limestone

Darnley, Edward Bligh, Earl of (d.1831) and W. Gladdish (1792/3–1871)
5 December 1828 TGS(2) 2 Fossil remains of a deer and an ox, found in the gravel at Gravesend [Kent] (Also reported in PGS 1 p. 106, 20 February 1829)
Pleistocene fossils at BGS.

Daubeny, Dr Charles Giles Bridle (1795–1867)
8 December 1821 TGS(2) 1 Specimens from Cornwall
27 February 1822 TGS(2) 1 Specimens from Cornwall
17 January 1823 TGS(2) 1 Specimens from the Lower Rake's Mine, Matlock, Derbyshire

Davidson, Thomas (1817–1885)
Carboniferous brachiopods from Breedon at BGS

Davies, James Edward (1817–1887)
December 1833 'MS only' fossils from old working near the Radnorshire Gaol. (*Letter T. T. Lewis to Murchison, 27 December 1833, GSL M L7/*)
Ordovician and Silurian fossils at BGS.

Davis, H.
May 1839 'MS' only oyster from Croydon, London, (*Letter, 3 May 1839, GSL Mus2/99*)

Dawes, Charles
8 May 1838 TGS(2) 5 Specimens from the North Lancashire Coal-Field (Also reported in PGS 3 p. 45, 15 February 1839)

Dawes, Matthew (1804–1860)
21 February 1845 PGS 4 p. 534 Specimens of Lepidodendron from the South Staffordshire coal-field
Carboniferous fossils at BGS.

Dawson, Mr
1 December 1815 TGS(1) 3 Curl-stone from Machynlleth [Powys]

Dawson, W. E. [of Plumstead]
21 February 1862 QJGS 18 Specimens of bones of Mammalia, from Wickham-lane Brick-field

Day, Mrs [of Shrewsbury]
16 February 1844 PGS 4 p. 343 Favosites from the Caradoc Sandstone, Haverfordwest [BGS]
Silurian fossils at BGS.

Day, William [of Shrewsbury]
17 February 1843 PGS 4 p. 50 Asaphus Buchii from the Llandeilo Flags and Porites from the Wenlock Limestone
Silurian fossils at BGS.

Deacon, James Henry (d.1862)
2 May 1821 TGS(1) 5 Tin ore and porcelain clay from Ailsbarrow mine, Dartmoor [Devon]

2 May 1821 TGS(1) 5 Nodule of chalcedony in trap
6 June 1832 TGS(2) 3 Semiopal from Dartmoor (See also the donation of 15 August 1832 and in PGS 1 p. 427 of 15 February 1833)
15 August 1832 TGS(2) 3 Specimens of semiopal and granite veins from Devonshire and Cornwall (Also reported in PGS 1. p. 427, 15 February 1833)
2 December 1834 TGS(2) 4 Specimens of Granite traversed by veins, from Dartmoor (Also reported in PGS 2 p. 131 on 20 February 1835)

Deck, Isaiah (1792–1853)
17 November 1838 TGS(2) 5 Casts of Calymene blumenbachi, Asaphus caudatus, and Encrinites moniliformis (Also reported in PGS 3 p. 46, 15 February 1839)
5 June 1839 TGS(2) 5 Casts of Ammonites henslowi
Silurian fossils at BGS.

De la Beche, Henry Thomas (1796–1855)
4 November 1817 'MS only' Fossil skeleton of a fossil animal from Charmouth [Dorset]
5 June 1818 TGS(1) 5 Specimen of a granite vein in slate in Cornwall; Pentacrinus from Lyme; fossil animal found at Lyme; ammonites from Lias at Lyme [Regis, Dorset]
19 June 1818 TGS(1) 5 Clay slate in contact with granite, from Teign-Bridge, Devon; pyritous fossil, resembling the fin of the Balista; fossil head of the Ichthyosaurus, shewing part of the eye; variety of the Pentacrinite from the lias of Chidiock, Dorset; fossil fish exhibiting the scales, from Lyme [Regis, Dorset]; part of the posterior paddle bones of the Ichthyosaurus from the lias at Lyme [Regis], Dorset; fossil tooth or palate from the lias, Lyme [Regis], Dorset; specimens from Guernsey and Jersey.
6 November 1818 TGS(1) 5 Fossil wood from the Lias
4 December 1818 TGS(1) 5 Fossil lobster from Greensand at Lyme Regis
6 June 1819 TGS(1) 5 Specimens from the environs of Builth, in Brecknockshire
19 Dec 1820 TGS(1) 5 Specimens of the Lyas and its fossils, from Lyme Regis [Dorset]
26 June 1823 TGS(2) 1 Lias from Lyme Regis (De la Beche, 1826) [BGS]
20 April 1827 TGS(2) 2 and 15 February 1828 PGS 1 p. 47 Portion of a large head of the Ichthyosaurus Platyodon*
12 September 1828 TGS(2) 2 and 20 February 1829 PGS 1 p. 106 Specimen of Ichthyosaurus intermedius from Lyme Regis [BGS]
19 February 1830 PGS 1 p. 178 A very fine Pentacrinites briareus; One fine portion and four others of the tusks of the mammoth, A Dapedium politum, and other fossils from Lyme Regis
4 May 1830 TGS(2) 3 Fossils from the Transition Limestone of Devon* (Also reported PGS 1 p. 260)
21 February 1834 PGS 2 p. 28 Fossils from the neighbourhood of Weymouth [Dorset]
2 December 1834 TGS(2) 4 and PGS 2 p. 131 Vegetable remains from the Anthracite of North Devon *(Letter, H. T. De la Beche to W. Lonsdale, 12 October 1834, GSL Mus1/53–4. This letter, and, a collection of which two specimens survive in the BM(NH), is noted in PGS 2: pp.106–7) (De la Beche, 1834)*
6 January 1836 TGS(2) 5 & 19 February 1836 PGS 2 p. 342 Fossils from ‹the Grauwacke Slate of› Cornwall, in the name of the Ordnance Geological Survey *(Letter, H. T. De la Beche to W. Lonsdale, 18 December 1835, GSL Mus1/105)*
20 February 1852 QJGS 8 Specimens of Beyrichia complicata in Llandeilo Flagstone

* *Twenty six former Geological Society Museum rock specimens from Devon, and attributable to De La Beche on the basis of secondary labels, survive in the Department of Mineralogy, BM(NH). One specimen exists from Lyme Regis, Dorset. Large collection of fossils at BGS. The portion of Ichthyosaurus Skull, now joined to the piece given in 1846 by Warburton and others, is still held by the Society in Burlington House.*

De la Beche, H. T. & Rev. Prof. Buckland. See Buckland

De la Condamine, Rev. Henry Malcolm (1823–1854)
21 February 1851 QJGS 7 Mollusca and fossil wood from the plastic clay series of Woolwich [London]
Tertiary fossils at BGS.

Denham, Sir Henry Mangles (1800–1887)
February 1841 TGS(2) 6 Boulders from Walney and the mouth of the Wyre, Morecombe Bay (Also reported in PGS 3 p. 373, 19 February 1841)

Dennys, Rev. Nicholas Belfield (1812/3–1899)
4 May 1830 TGS(2) 3 and PGS 1 p. 260 Fossils from Lias and oolitic Coal Measures of Yorkshire
27 September 1836 TGS(2) 5 Specimens from the Chalk of Gogmagog Hill, near Cambridge (Also reported in PGS 2 p. 464, 17 February 1837)
1 June 1838 TGS(2) 5 Shells from the Crag of Felixstow [Suffolk] (Also reported in PGS 3 p. 45, 15 February 1839)
Jurassic fossils at BGS.

Devonshire, William Spencer Cavendish, 6th Duke of, (1790–1858)
4 March 1820 TGS(1) 5 Calcareous spar and yellow copper ore from Ecton Mine [Derbyshire]

Dick, Allan B. (1833–1926)
20 February 1857 QJGS 13 Cleveland Iron-ore (Dick, 1856)

Dickinson, John (1782–1869)
4 December 1834 TGS(2) 4 Palatal Tooth of a Fish from the Chalk

Dillwyn, Lewis Weston (1778–1855)
4 April 1824 TGS(2) 2 Titanium in slag from the Cyfartha Iron Works at Merthyr Tydvill [south Wales]
20 May 1824 'MS only' Specimens from the bottom of an iron furnace in Shropshire which has assumed a columnar form
24 March 1826 TGS(2) 2 Coal from south Wales

Donovan, Edward (1768–1837), see Warburton, H., 15 May 1818

Ducane, Peter junr. (1778–1841)
19 June 1818 TGS(1) 5 Specimens from the Tumuli on the edge of the marshes regained from the sea in the parish of Tollesby, Essex ‹this donation is attributed to Daubeny in the Wastebook›

Duff, Patrick (1791–1861)
Fossils from the Old Red Sandstone of Morayshire at BGS

Dudley, John William Ward, 1st Earl of, (1781–1833)
25 January 1826 'MS only' Fossil encrinus found at Dudley
30 March 1831 TGS(2) 3 and PGS 1 p. 351 A slab of Dudley Limestone

Dugard, Dr Thomas (1777–1840)
6 November 1812 TGS(1) 2 Carbonate of lead from Shropshire
5 November 1813 TGS(1) 2 Calcareous spar from Shropshire*
3 January 1815 TGS(1) 3 Fossil organic remains from Clungunford, Shropshire
30 December 1818 TGS(1) 5 Carbonate of barytes
* *The specimen of calcite from Snailbeach, Minsterly, Salop, is now numbered BM1911,568*

Duncan, Peter Martin (1824–1891)
19 February 1886 QJGS 42 Specimen of Astrocoenia gibbosa, from the Sutton Stone; in illustration of paper read on November 4, 1885 (Duncan, 1886)
Jurassic fossils at BGS.

Dundas, Thomas, Lord (1794/5–1873)
19 February 1813 TGS(1) 2 Jet from Whitby and Agate from Scotland
4 November 1814 TGS(1) 3 Two septaria from Whitby [North Yorkshire]
4 November 1814 TGS(1) 3 Two calcareous incrustations

Du Noyer, George Victor (1817–1869)
December 1868 'MS only' Flint flakes from Antrim (Du Noyer, 1868)

Duppa, [Mr]
Silurian fossils from Shropshire at BGS

Dury, Rev. Theodore (1788/9–1850)
10 June 1835 TGS(2) 4 Fossils from the coal strata near Keighley, in Yorkshire (Also reported in PGS 2 p. 341, 19 February 1836 as being given by 'Rev Thomas Drury')

Edgeworth, Dr Henry
2 December 1808 TGS(1) 1 Specimens from Ireland
5 May 1809 'MS only', sulphate of barytes from Malvern

Egerton, Sir Philip de Malpas Grey (1806–1881)
Undated Fragments of the erratic boulders of Delamere Forest, Cheshire*
11 March 1833 'MS only', fossils from the Mountain Limestone and Lias
8 May 1833 TGS(2) 3 Specimens from the Isle of Man; of ripple-marks in the New Red Sandtone of Cheshire; and geodes from the Magnesian Limestone of Yorkshire
12 June 1833 TGS(2) 3 Fossils from the Mountain Limestone and Lower Coalshale, county of Fermanagh
1 March 1835 TGS(2) 4 Specimens from the Silverdale Mines, Staffordshire (Also reported in PGS 2 p.341, 19 February 1836)
23 February 1836 TGS(2) 5 Cast of the united atlas and axis of an Ichthyosaurus (Egerton, 1837)
22 May 1839 TGS(2) 5 A slab of New Red Sandstone from Eaton, Cheshire, with ripple marks and impressions of Cheirotherium footsteps (Also reported in PGS 3 p. 195, 21 February 1840)
16 February 1844 PGS 4 p. 342 Productae from the Magnesian Limestone, Humbleton Hill [Northumberland]
20 February 1852 QJGS 8 19 Specimens of fossil Ophiurae
16 February 1877 QJGS 33 Casts of Coelodus ellipticus Egerton, and Pyenodus bowerbanki Egerton
* *Ten specimens of this donation are now in the Department of Mineralogy, BM(NH). A large collection of fossils is held at BGS.*

Egerton, Sir Philip de Malpas Grey and Earl of Enniskillen
21 February 1834 PGS 2 p. 28 Geological specimens from the Isle of Man; Specimens of ripple marks in the New Red Sandstone of Cheshire, Geodes from the Magnesian Limestone, Yorkshire and coal shale of Kulkeagh, county of Fermanagh (the same donation of specimens from the Mountain Limestone is perhaps given below)
4 June 1834 TGS(2) 4 Corals from the shale beds of the Mountain Limestone, County of Fermanagh (Also reported in PGS 2 p. 130, 20 February 1835)
4 December 1834 TGS(2) 4 Fossils from the Greensand near Lyme [Regis, Dorset]
3 February 1835 TGS(2) 4 Fossils from the Greensand, Blackdown [Dorset] (Also

reported in PGS 2 p. 130, 20 February 1835, and in PGS 2 p. 341, 19 February 1836 as 'Fossils from Blackdown')
25 April 1836 TGS(2) 5 Specimens from the Marlstone near Lyme Regis [Dorset] (Also reported PGS 2 p. 463, 17 February 1837)
5 April 1837 TGS(2) 5 Pentacrinites briareus, from the Lias, Lyme Regis (Also reported PGS 2 p. 607, 16 February 1838)

Egerton, Sir P., Earl of Enniskillen, H. Warburton, R. I. Murchison, C. Stokes and W. J. Broderip. See Warburton

Emmett, General Anthony (c1790–1872)
17 February 1860 QJGS 16 Specimens from the Speeton Clay

England, Rev. Thomas (1807–1881)
5 February 1834 TGS(2) 4 Specimens from the Coal Field of the Wyre Forest [Shropshire] (Also reported in PGS 2 p. 29, 21 February 1834. *Letter, 2 January 1834, GSL LR1/2)* (England, 1834)
Carboniferous fossils at BGS.

Englefield, Sir Henry Charles (1752–1822)
20 March 1812 TGS(1) 2 Undescribed Alcyonium from Brighton [E.Sussex]
19 March 1813 TGS(1) 2 Specimens from Dorsetshire and the Isle of Wight (Webster, 1814: p. 161)
November 1816 'MS only' A mass of iron nails which has been fused by the fire of a house that was burnt
6 December 1816 TGS(1) 4 Fossil Pentacrinus
Jurassic fossil at BGS.

Engleheart, Rev. Henry [?A.M.] (1801–1885)
11 May 1831 TGS(2) 3 A collection of chalk flints, containing organic remains *(Letter, 17 May 1831, GSL Mus1/181)*
8 June 1831 TGS(2) 3 Fossils from Sheppey [Kent] (Also reported in PGS 1 p. 352, 17 February 1832)
10 April 1832 TGS(2) 3 A specimen of a recent freshwater sponge and fossils from the Chalk (Also reported in PGS 1 p. 427, 15 February 1833. *Letter, n.d., GSL Mus1/119)*
Cretaceous and Tertiary fossils at BGS.

Enniskillen, William Willoughby Cole, 3rd Earl of (1807–1886); known as Lord Cole until 1840
11 February 1832 TGS(2) 3 and PGS 1 p. 426 Corals from the Mountain Limestone of Ireland
9 March 1832 TGS(2) 3 and PGS 1 p. 426 Fossil wood from the Isle of Sheppey [Kent]
16 March 1832 TGS(2) 3 and PGS 1 p. 426 Cast of the Plesiosaurus macrocephalus, and of a tooth of the Deinotherium
14 May 1832 TGS(2) 3 and PGS 1 p. 426 Crystallized magnesian carbonate of lime
25 April 1836 TGS(2) 5 and 17 February 1837 PGS 2 p. 463 Specimens from the Lias at Lyme Regis [BGS]
5 April 1837 TGS(2) 5 and 16 February 1838 PGS 2 p. 607 Fossils from the Mountain Limestone of Ireland
26 February 1839 TGS(2) 5 Corals from the Mountain Limestone of Lough Erne
21 February 1840 PGS 3 p. 194 Remains of mammalia found in the Black Bog of Dunshaughlin, County of Meath; and cast of the femur of a saurian from Shotover Hill [Oxfordshire]
19 February 1841 PGS 3 p. 373 Fossils from the Mountain Limestone of the North of Ireland

6 May 1841 TGS(2) 6 Fossils from the Mountain Limestone, County of Kildare (Also reported PGS 3 p. 620, and listed in PGS 3 p. 436)
17 February 1843 PGS 4 p. 49 Remains of Crustaceans from the Lias of Lyme Regis, and a Lithodendron from the Carboniferous Limestone on the shores of Lough Gill, County Sligo (Also reported, in part, with the donation of the Earl on Enniskillen and Sir Philip Egerton, see below)
16 February 1844 PGS 4 p. 342 Ammonite from the Calcareous Grit; and a series of fossils from the Carboniferous Limestone of Hook Point, Co. Wexford [Ireland]
16 February 1877 QJGS 33 Model of fish teeth from the Carboniferous Limestone of Armagh, Ireland.
Large collection of fossils at BGS.

Enniskillen, Earl of, and Sir P. de M. G. Egerton. See also under Egerton, Sir P. de M. G.
23 February 1842 TGS(2) 6 Remains of Crustacea from Lyme Regis (Also reported in PGS 4 p. 49)
1 June 1842 TGS(2) 6 Specimen of Lithodendron from Lough Gill, County Sligo (Also partly reported in PGS 4 p. 49. See above under the Earl of Enniskillen)
19 February 1847 QJGS 3 Specimens of crinoidal remains ‹from the north of Ireland›

Earl of Enniskillen, H. Warburton, R. I. Murchison, C. Stokes and W. J. Broderip. See Warburton

Evans, Caleb (1831–1886)
19 February 1887 QJGS 43 Two specimens of Elytra of beetles from the London Clay of Peckham [London]. One specimen of Palaeocorystes glabra, (Woodward, 1871), and one specimen of Litoricola glabra (Woodward, 1871) both from the Lower Eocene of Portsmouth
Tertiary fossils at BGS.

Evans, James
Coal Measures fossil plants from Lancashire at BGS

Evans, John [FGS]
15 February 1861 QJGS 17 Specimens of fossil-wood from Woburn [Bedfordshire]
21 February 1862 QJGS 18 Cast of flint implement from Icklington [Bedfordshire]

Evans, Norman
Coralline Crag fossils at BGS

Evans, William Rowland (1810/11–1842)
15 April 1839 TGS(2) 5 Fossils from the Ludlow Formation, near Ludlow (Also reported in PGS 3 p. 195 on 21 February 1840. *Letter, 18 December 1838, GSL Mus2/72)*
Silurian and Quaternary fossils at BGS.

Falconer, Hugh (1808–1865)
Crag fossils from Suffolk and Essex at BGS

Falconer, Thomas (1805–1882)
21 February 1845 PGS 4 p. 534 Bones of Palaeotherium and Chelonia from Hordle and Barton [Hampshire]

Farey, John (1766–1826)
5 January 1810 TGS(1) 1 Worm-eaten wood petrified, found in the sand under the Fuller's Earth, near Woburn, Bedfordshire
Carboniferous fossils at BGS.

Faulkner, Charles (1797/8–1871)
21 February 1845 PGS 4 p. 534 Fossils from the Lias of Deddington, Oxfordshire
15 February 1850 QJGS 6 Ammonites, from the Marlstones, Deddington [Oxfordshire]
Jurassic fossils at BGS.

Faulkner, Rev. Edwyn (1797/8–c1880)
19 February 1841 PGS 3 p. 373 Specimen of fossil wood from Adderbury West [Oxfordshire]

Fayle, Benjamin [of London]
2 December 1819 TGS(1) 5 Specimens of plastic clay from Norden clay pits, near Corfe Castle [Dorset] (*Section of the clay pits, n.d. GSL Mus1/38*)

Ferguson, Robert (d.1841)
1 February 1811 TGS(1) 1 Amygdaloid containing agates from the coast of Ayrshire
5 April 1811 TGS(1) 1 Actinolite ‹from Portsoy› and some other minerals from Scotland
1 November 1811 TGS(1) 2 Specimens of the strata at Folkestone [Kent] [See MS *Observations on the strata of Folkstone June 1811, GSL Mus1/122*]; crystallized sulphate of barytes from Cumberland
26 February 1819 TGS(1) 5 Anthracite in trap-tuff, Calton Hill [Edinburgh] and schorl from Rubislaw, Aberdeen

Ferguson, William (1823–1904)
21 February 1855 QJGS 11 Fossils from the Lower Carboniferous rocks of Scotland
Carboniferous fossils at BGS.

Fisher, Rev. John Hutton (1794/5–1869)
1 June 1838 TGS(2) 5 Fossils of the Mountain Limestone from Kirby Lonsdale [Cumbria] and Clitheroe [Lancashire] (Also reported in PGS 3 p. 45, 15 February 1839 as being donated by 'Rev. J. Fisher', see below)
Palaeozoic fossils at BGS.

Fisher, John (d.1851)
21 February 1840 PGS 3 p. 195 Part of a fossil tree from Portland [Dorset]

Fisher, Rev. Osmond (1817–1914)*
19 February 1864 QJGS 20 Specimens of fossil Coleoptera, and a fragment of a molar of Elephas primigemius, from the peat of Lexden, near Colchester [Essex] (Fisher, 1863)
15 February 1867 QJGS 23 Newer Pliocene fossils from Chillesford, Suffolk. (Fisher, 1866)
* *Two apparently unreported specimens of rock and earth obtained from the Geological Society Museum, probably from Essex, are now in the Department of Mineralogy, BM(NH).*
Tertiary and Quaternary exist fossils at BGS.

Fitch, Robert (1802–1895)
February 1841 TGS(2) 6 Casts of Molars of a Mastodon from the Crag; and of a Hippopotamus from Happisburgh [Norfolk]; also Fishes' Teeth from the Norwich Crag (Also reported in PGS 3 p. 620, 18 February 1842)
Cretaceous fossils at BGS.

Fitton, William Henry (1780–1861)
5 November 1824 TGS(2) 2 Fossils from the Isle of Purbeck (Fitton, 1824*a*)*
15 February 1828 PGS 1 p. 47 Specimens from the strata between the Chalk, and the

Kimmeridge Clay, from the vicinity of Folkstone,* the Vale of Wardour,* Berkshire,* and other places* (See Fitton, 1834*a*, 1843*b*, 1836)
18 February 1831 PGS 1 p. 258 A collection from the Greensand and Wealden formations
30 September 1833 TGS(2) 4 Specimens of Endogenites erosa from St Leonards [E.Sussex] (Also reported in PGS 2 p. 29, 21 February 1834)
April 1835 TGS(2) 4 Specimens from the Isle of Portland* (Also reported in PGS 2 p. 341. See Fitton, 1835)
25 August 1835 TGS(2) 5 Additional specimens from the strata between the Chalk and the Oxford Oolite, in the south-east of England* (Fitton, 1836. *List of fossils, 25 July 1835, GSL LDGSL31)*
6 January 1836 TGS(2) 5 Fossils from the strata below the Chalk in Buckinghamshire and Oxfordshire* (Also reported, in part, in PGS 2 p. 341, 19 February 1836. *Catalogue of specimens, 1835, BMNHP Mss Geo.)*
31 August 1841 TGS(2) 6 Fossils from the Silurian Series of Shropshire &c. (Also reported in PGS 3 p. 621, and listed at pp. 559)
16 February 1844 PGS 4 p. 341 Series of Lower Greensand fossils from Atherfield, Isle of Wight* (see Fitton, 1824*b*, 1836, 1843*a*, 1843*b*, 1845, 1846, 1847).

* *Surviving Geological Society Museum rock specimens from these areas, and connected with these important papers by Fitton, survive in the Department of Mineralogy, BM(NH). A large collection of fossils is held at BGS.*

Fitton, Dr and R.A.C. Austen
16 February 1844 PGS 4 p. 342 Fossils from the Lower Greensand, Redhill, near Reigate [Surrey]

Fletcher, Thomas William (1808–1893)
21 February 1851 QJGS 7 Specimens of Lichas bucklandi, on Wenlock Limestone from Dudley [W. Midlands] (Fletcher, 1850).
Silurian fossils at BGS.

Flower, John Wickham (1807–1873)
Fossils from the Chalk at Croydon, Surrey [now London] at BGS

Forbes, Professor Edward (1815–1854) and L. L. B. Ibbetson. See Ibbetson & Forbes

Forbes Young, Dr J., see Young, J.

Foster, Westgarth (1772–1835), see Monck, Sir Charles

Foster, Clement Le Neve (1841–1904)
19 February 1875 QJGS 31 Specimen of Chalkosiderite from Cornwall (Foster, 1875)
16 February 1883 QJGS 39 Waterworn pebbles of Galena from an alluvial deposit of lead-ore, Minera, Wrexham [Clwyd]

Fox, George Townshend (1782–1848)
6 June 1832 TGS(2) 3 Fossil ‹testacea› from the Lias of Rugby (Also reported in PGS 1 p. 427, 15 February 1833)

Fox, Rev. William Darwin (1805–1880)
17 November 1838 TGS(2) 5 Cast of the jaw of a Choeroptamus (Also reported in PGS 3 p. 46, 15 February 1839)

Francis, Charles Larkin
April 1831 'MS only' Nautilus from Sheppey, Kent (*Letter, C. L. Francis to R. I. Murchison, 27 April 1831, GSL Mus1/141*)
25 February 1832 TGS(2) 3 Tusk of a Mammoth found in the gravel near Nine Elms,

Surrey (Also reported in PGS 1 p. 426, February 25 1832) (*Letter, C. L. Francis to E. Turner, 23 February 1832, GSL Mus1/195*)

Francis, White J. and Francis, Messrs
27 November 1835 TGS(2) 5 Remains of a recent sheep imbedded in indurated clay (Also reported in PGS 2 p. 342, 19 February 1836) (*Letter, C. L. Francis to J. Mitchell, 20 November 1835 and J. M. Mitchell to W. Lonsdale, 23 November 1835, GSL Mus1/117–8.)*

Fulton, Dr
1 January 1844 'MS only' Specimens from the Greensand, Atherfield [Isle of Wight]

Gale, Miss
19 February 1841 PGS 3 p. 373 Specimen of a Clypeaster from the Cornbrash near Bedford
Jurassic fossils at BGS.

Garden, Major Robert Jones (1820/1–1870)
21 February 1862 QJGS 18 Specimens of Ventriculites, Serpulae, etc., Upper Greensand, Compton Bay, Isle of Wight
Cretaceous fossils at BGS.

Gavey, George Edward (1818/9–1903)
18 February 1853 QJGS 9 Series of specimens from the Lias and Drift of Gloucestershire* (Gavey, 1853)
* *Two specimens of coprolites from Mickelton Tunnel are now in the Department of Mineralogy, BM(NH).*
Jurassic and Cretaceous fossils at BGS.

Gawen, Joseph
24 September 1816 TGS(1) 4 ‹Large› Ammonites in Portland Stone

Geikie, Sir Archibald (1835–1924)
15 February 1861 QJGS 17 A series of thirty-six specimens of trappean rocks from Arthur's Seat, Edinburgh

Gibson, John (d.1840)
26 January 1822 TGS(2) 1 Septarium from Booforth, near Kirby Moorside, Yorkshire
15 August 1822 TGS(2) 1 Fossil bones found in Kirkdale Cave, Yorkshire
8 May 1824 TGS(2) Specimen of a Mya from diluvial clay at Ilford in Essex, containing bones of the Elephant, Rhinoceros, &c.
Quaternary fossils at BGS.

Gibson, Samuel (1790–1894)
17 February 1843 PGS 4 p. 50 Goniatites gibsoni from the Carboniferous Shales of the Vale of Todmorden [W. Yorkshire]
Carboniferous fossils at BGS.

Gilbert, Mr [of Matlock]
3 August 1820 TGS (1) 5 Cupreous silicate of zinc from Matlock [Derbyshire]

Gilbert, Davies (1789–1839) see Mitchell, T.

Gilbertson, William (1789–1845)
15 December 1826 TGS(2) 2 and PGS 1 p. 15 Heads, stems, and various parts of Crinoidea, from Lancashire (*List of crinoids from Lancashire, GSL Mus2/113*)
December 1841 TGS(2) 6 Crinoidal remains from the Mountain Limestone, near

Preston [Lancashire] (Also reported in PGS 3 p. 622, 18 February 1842. *Letter, W. Gilbertson to W. Lonsdale, 1841, GSL Mus2/107)*
Carboniferous fossils at BGS.

Gill, Thomas. [M.P.]
January 1842 TGS(2) 6 Remains of the bear and other mammalia, from the raised beach, Plymouth [Devon] (Also reported in PGS 3 p. 622, 18 February 1842)

Gladdish William (1792/3–1871), and Earl of Darnley. See Darnley & Gladdish

Glasspoole, Mr
February 1841 TGS(2) 6 Specimen of Leptaena distorta (Also reported in PGS 3 p. 620, 18 February 1842)
Carboniferous fossil at BGS.

Godwin-Austen, Robert Alfred Cloyne (1808–1884); used the surname Austen intil 1853
13 November 1834 TGS(2) 4 Specimens from ancient beach* at Hope's Nose, Babbacombe, and from the Watcomb Fault, Devonshire (Also reported in PGS 2 p. 130) (Austen, 1834)
15 March 1836 TGS(2) 5 Fossils from the Greensand and the Transition Limestone of Devonshire (Also reported in PGS 2 p. 463. See Sedgwick and Murchison, 1840. *Letter, R.A.C. Austen to W. Lonsdale, 12 January 1836, GSL Mus1/86)*
16 February 1844 PGS 4 p. 342 Fossils from the Lower Greensand at Peasmarsh, Surrey; Cardium crassum (Austen MS) and Hinnites from the Upper Greensand, Blackdown [Devon] (Austen, 1842 & 1843)
21 February 1845 PGS 4 p. 534 Fossils from the Lower Greensand at Peasmarsh, Guildford, Surrey
17 December 1845 'MS only' Plaster cast of Cardium concentricum, Lower Greensand, Haldon, Devon
18 February 1859 QJGS 15 Coral from the Lower Greensand at Chilworth [Surrey]
17 February 1865 QJGS 21 Specimens of coal from the Chalk of Kent (Godwin-Austen, 1860)
* *Four specimens from a Shingle Bed, and corresponding to this donation, are extant in the Department of Mineralogy, BM(NH). There are also three igneous rocks from the Chalk at Croydon described by Godwin-Austen (1858). Large collection of fossils held at BGS.*

Godwin-Austen R. A. C. and W. H. Fitton. See Fitton & Godwin-Austen

Goodhall, Henry Humphrey (1764/5–1835)
5 February 1830 TGS(2) 3 Hamites gigas and other fossils from Sandgate [Kent]
19 February 1830 PGS 1 p. 178 Marsupites from the Chalk at Brighton [E.Sussex] and a cast of Hamites gigas with other fossils from Sandgate [Kent]
3 March 1830 TGS(2) 3 Fossils from the Greensand, Lias and Carboniferous Limestone of England (Also reported in PGS 1 p. 260, 18 February 1831)
11 May 1831 TGS(2) 3 Fossils from the Lower Greensand in the neighbourhood of Calne, Wilts *(Letters, H. H. Goodhall to R. I. Murchison, 9 May 1831 and H. H. Goodhall to W. Lonsdale, 9 May 1831, GSL Mus1/142, 157. Also 'List of fossils', December 1831 GSL, Mus1/156, and Mus2/82)*
13 December 1831 TGS(2) 3 Fossils from Weymouth [Dorset] and Brighton [E.Sussex]
12 January 1832 TGS(2) 3 Fossils from Dundry Hill [Bristol]
17 February 1832 PGS 1 p. 351 Fossils from the Chalk, Lower Greensand, Coral-Rag, Inferior Oolite, and Lias
Cretaceous fossils at BGS.

Gordon, D. [of Abergeldie]
1 April 1824 TGS(2) 2 Wood from the moss, Auldgursack, Aberdeenshire

Gordon, Rev. George (1801–1894)* and W. Staples
19 February 1841 PGS 3 p. 373 Specimens of Fishes from the Old Red Sandstone of Morayshire
* *Three one-time Geological Society Museum rock specimens from Cutley Hill, Elgin, Scotland, attributable to G. Gordon and illustrating a letter from G. Gordon to Sir Roderick I. Murchison (Murchison, 1832b), are now in the Department of Mineralogy, BM(NH).*
Triassic fossils are at BGS.

Gordon, Rev. G., W. Staples & J. G. Malcolmson. See Malcolmson

Gordon Cuming, Lady Eliza Maria (c1798–1842)
30 November 1840 TGS(2) 6 A collection of Fossil Fish from the Old Red [Sandstone] of Scotland (Also reported in PGS 3 p. 373, 19 February 1841)
Old Red Sandstone fossils at BGS.

Gorham, Rev. George Cornelius (1787–1857)
20 July 1816 TGS(1) 4 Fossil wood from the ferruginous sand near Sandy, Beds *(Letter, 26 June 1816, GSL Mus1/48)*
Cretaceous fossils at BGS.

Gorst, Gilpin (fl.1837–1848)
1 June 1838 TGS(2) 5 [Fossil] Specimens from Under Barrow, near Kendal [Cumbria] (Also reported in PGS 3 p. 45, 15 February 1839)
17 February 1843 PGS 4 p. 50 Specimens of Producta gigantea from the Carboniferous Limestone near Hexham [Northumberland]
Carboniferous fossils at BGS.

Gould, Rev. Joseph (1834–1908)
17 February 1860 QJGS 16 Specimens of fossil ferns from Burwash and Brightling [E.Sussex]
Cretaceous fossils at BGS.

Gourlie, W. J.
22 July 1854 'MS only', model of Volkmannia morrisii, a fossil plant from Carluke [Scotland]
Model of a fossil at BGS

Gower, Abel Lewis (d.1849)
1 February 1833 TGS(2) 3 Cast of a fossil plant from the Coal Measures (Also reported in PGS 1 p. 427, 15 February 1833)

Grantham, Richard Boxhall (1805/6–1891)
1 June 1838 TGS(2) 5 Fossils from the Chalk of Berkshire (Also reported in PGS 3 p. 45, 15 February 1839. *Letter, 20 September 1838, GSL Mus2/40,41)*
27 March 1839 TGS(2) 5 Fossils from the Lias near Cheltenham (Also reported in PGS 3 p. 194, 21 February 1849. *Letters, 7 January, 10 and 11 March 1839, GSL Mus2/42–4)*
17 November 1841 TGS(2) 6 Ammonites from the Lias Clay, near Cheltenham (Also reported in PGS 3 p. 621, 18 February 1842. *Letter, R. B. Grantham to W. Lonsdale, 10 December 1841, GSL LR6/425)*
17 February 1843 PGS 4 p. 50 Fossils from the Inferior Oolite near Gloucester
Jurassic and Cretaceous fossils at BGS.

Granville, Dr Augustus Bozzi (1739–1872)
4 June 1822 TGS (2) 1 Specimens of printing on amianthus paper*
* *The Mineralogy Dept., BM(NH), register indicates a specimen of tremolite asbestos 'paper', now BM1911,596, was given to the Geological Society of London by a Dr Granville in January 1829.*

Graives, W.
Coal Measures fossils from Tonge Moor, near Bolton, Lancashire at BGS

Gray, John (fl.1839–1869)
23 February 1842 TGS(2) 6 and 17 February 1843 PGS 4 p. 49 Casts of Crinoidea and Trilobites from Dudley [W. Midlands] *(Letter, 27 January 1842, GSL Mus2/58; listed at PGS 3 p. 561)*
Casts of fossils at BGS.

Green, James
18 December 1867 'MS only', an oyster from the gravel at Logshill, Chislehurst [London]
Tertiary fossils at BGS.

Greenock, Lieut-General Charles Murray Cathcart, Lord (1783–1858)
24 November 1835 TGS(2) 5 Fossil fishes from the Coal Measures at Wardie near Newhaven, Stoney Hill near Musselburgh, and the Edmonstone Colliery near Stoney Hill (Also reported in PGS 2 p. 342, 19 February 1836)
30 May 1842 TGS(2) 6 Crystals of Greenockite from near Bishopton, Renfrewshire (Also reported in PGS 4 p. 49, 17 February 1843)
Carboniferous fossils at BGS.

Greenough, George Bellas (1778–1855)*
6 May 1808 TGS(1) 1 Rocks from Scotland
4 November 1808 TGS(1) 1 Specimens from Cornwall, Sussex &c.
1 December 1809 TGS(1) 1 Specimens from Northamptonshire &c.
2 November 1810 TGS(1) 1 Specimens from the neighbourhood of Oxford &c.
5 April 1811 TGS(1) 1 Specimens from various parts of England and Wales
1 November 1811 TGS(1) 2 Slab of limestone with organic remains from Charmouth [Dorset]
21 February 1812 TGS(1) 2 Specimens from Ireland *(List and description of specimens, n.d. GSL LDGSL27/3)*
6 December 1812 TGS(1) 2 Specimens from Yorkshire & Cumberland
5 November 1813 TGS(1) 2 A supposed Fossil Crocodile from Charmouth [Dorset]
3 December 1813 TGS(1) 2 Granite and gneiss from north Wales, Westmoreland and Leicesterhire *(Letter, G.B. Greenough to T. Webster, 26 November 1813, GSL Mus1/192)**
31 January 1814 TGS(1) 2 Pitchstone from the Hebrides and Strata from the Coalfield of Fifeshire
18 February 1814 TGS(1) 2 Specimens of English, Scottish and Irish rocks
4 March 1814 TGS(1) 2 Magnesian Limestone ‹and primitive rocks› from ‹the neighbourhood of Irton,› Cumberland
1 April 1814 TGS(1) 2 Vein-stones from English strata ‹and simple minerals›
6 April 1814 'MS only' Primitive rocks from the Snowdon district, Cumberland and Anglesea; specimens from Scotland
15 April 1814 TGS(1) 2 English and Scottish rocks
27 April 1815 TGS(1) 3 Specimens of English and Scottish strata ‹listed in detail in Waste Book, 7979–8055›

1 May 1815 TGS(1) 3 English strata
9 September 1815 TGS(1) 3 English strata
3 November 1815 TGS(1) 3 Specimens from south Wales
5 January 1816 TGS(1) 3 Plastic Clay ‹and clay› from the Weald of Sussex ‹both used for tiles›
17 January 1817 TGS(1) 4 Arsenical cobalt and native silver from Wilsworthy [Cornwall]
18 April 1817 TGS(1) 4 Ferruginous sandstone impregnated with bitumen, from Chilly, Sussex
18 April 1817 TGS(1) 4 Fossils from the ferruginous sand, Parham Park, Sussex
9 July 1817 TGS(1) 5 Simple minerals*
21 November 1817 TGS(1) 5 Specimens from the neighbourhood of Babbacombe [Devon]
19 December 1817 TGS(1) 5 Specimens from Devonshire and Cornwall
16 January 1818 TGS(1) 5 Rocks from Cornwall
14 February 1820 TGS(1) 5 Recent shells
18 December 1818 'MS only' Specimens from Chobham [Surrey] and boulders on Bagshot Heath
1 March 1820 TGS(1) 5 Various British geological specimens
26 June 1823 TGS(2) 1 Specimens of the bed immediately below the Chalk at Compton near Guildford [Surrey], usually called in that country black-land
8 February 1825 TGS(2) 2 Fossil bones of the crocodile from the London Clay
8 December 1826 TGS(2) 2 Three specimens of rocks, and recent shells
21 February 1834 PGS 2 p.25 A collection illustrative of some important phaenomena in geology, such as the alteration of rocks in contact with granitic and other mineral veins
4 June 1834 TGS(2) 4 Minerals from the Trap of Scotland (Also reported PGS 2 p. 130, 20 February 1835)
14 December 1836 TGS(2) 5 and PGS 2 p. 464 A specimen of New Red Sandstone found in the fenland of Lancashire, at the depth of 512 feet
1 February 1837 TGS(2) 5 Polished agates
16 February 1844 PGS 4 p. 343 Specimen of Pinna affinis from the London Clay, Bognor [Regis, W.Sussex]

* *According to the records of the Department of Mineralogy, BM(NH), specimens of tremolite asbestos from Cornwall (now BM1911,598) and Argyll (BM1911,599) were originally donated to the Geological Society Museum in December 1813. Also, specimens of calcite survive which are related to the donation of 'simple minerals' of July 1817. Calcite from Crediton, Devon, is now BM1911,569, the same mineral from Dolphins Bay, Dublin, Ireland, is BM1911,570, calcite from Carlingford is now BM1911,572 and from Halkin, Flint, is BM1911,575.*
Surviving rock specimens attributable to G. B. Greenough include eight specimens from the Kimmeridge area, Dorset; two specimens from Lackington Hill; one specimen from a clay pit on the Isle of Purbeck and a specimen from Shaftsbury, Dorset. All these specimens are now in the Department of Mineralogy, BM(NH), and will be registered in due course.
A large collection of fossils is held at BGS.

Greenough, G. B., H. G. Bennet and Lord Compton. See Bennet

Greer, Thomas [of Dungannon]
14 October, 1835 TGS(2) 5 A slab of New Red Sandstone with impressions of fish, from Rhone Hill, near Dungannon (Reported in PGS 2, p. 342, 19 February 1836 as being from 'Rhonchill'. *Letters, W. Green to W. Lonsdale, 30 September 1835 and 24 October 1835, GSL Mus1/107–8)*

Gregor, Rev. William (1761–1817)
18 June 1813 TGS(1) 2 Tremolite from Clicker Tor, Cornwall (Gregor, 1816)*(Letter, W. Gregor to L. Horner, 1 June 1813, GSL LDGSL28)**
* *A specmen of tremolite from Clicker Tor, Liskeard, given to the Geological Society Museum by Gregor 'before 1816', is now BM1911,600*

Gregory, Henry
27 September 1836 TGS(2) 5 Specimens from the Chalk of various parts of England

Griffith, Richard John (1784–1878)
6 January 1836 TGS(2) 5 Specimens of syenite from veins traversing mica-slate and chalk near Goodland Cliff and Torr Eskert, to the south of Fair Head, Antrim (Also reported in PGS 2 p. 342, 19 February 1836, see Griffith, 1837)
22 May 1839 TGS(2) 5 A collection of fossils from the south of Ireland* (Griffith, 1839). (Also reported in PGS 3 p. 195, 21 February 1840* *Catalogue of specimens, n.d., GSL Mus2/26)*
January 1840 'MS only' Fossils from Portrane, Ireland (*Letter, R. J. Griffith to W. Lonsdale, 1 January 1840, GSL Mus2/27)*
* *Fossiliferous Geological Society Museum rock specimens connected with R. J. Griffith are extant in the Department of Mineralogy, British Museum (Natural History). There are twenty three from Co Kerry, nineteen from Co Cork, twelve from Waterford, five from Tipperary and five from various localities in Northern Ireland.*
There are Carboniferous fossils at BGS.

Guest, Sir Josias John (1785–1852)
12 March 1821 TGS(1) 5 Specimen of fibrous coal, south Wales

Guilding, Rev. Lansdown (?1797–1831)
26 June 1823 TGS(2) 1 Fin of a Balista ‹from Blue Lias, Berkeley Canal›
Jurassic fossil at BGS.

Guise, William Vernon (1816–1887)
1 June 1842 TGS(2) 6 Specimen of Stromatopora concentrica (Also reported in PGS 4 p. 49, 17 February 1843)
29 June 1842 TGS(2) 6 Specimens from the Inferior Oolite, Leckhampton Hill, [Gloucestershire] &c. (Also reported in PGS 4 p. 49, 17 February 1843)
Jurassic fossils at BGS.

Gunn, Rev. John (1801–1890)*
31 May 1837 TGS(2) 5 Tooth of a mastodon from the Crag of Norfolk (Also reported in PGS 2 p. 608, 16 February 1838 *Letters, 31 May and 11 June 1837, GSL Mus2/11 & 64)*
21 February 1840 PGS 3 p. 195 Three Paramoudras from Norfolk (Gunn, 1840)
20 February 1852 QJGS 8 Specimen of Paramoudra from the Chalk
18 February 1859 QJGS 15 Striated boulders from Suffolk (See note in PGS 3 p. 170)
* *A former Geological Society Museum specimen from Trimingham Cliff, Norfolk, is extant in the Department of Mineralogy, BM(NH).*
Cretaceous and Pleistocene fossils at BGS.

Gurney, Miss Anna (1795–1857)
21 February 1845 PGS 4 p. 534 Chalk with fossils from Trimmingham, Norfolk

Hailstone, Rev. John (1759–1847)
18 June 1813 TGS(1) 2 Specimens containing organic remains from the summit of Snowdon

3 June 1814 TGS(1) 2 Fossils from ‹the chalk of Cherry Hinton and gravel pits,› Cambridgeshire*

17 March 1815 TGS(1) 3 Geode from Oakhampton [Devon] *(Letter, J. Hailstone to H. Warburton, 14 March 1815, GSL Mus1/175)*

7 April 1815 TGS(1) 3 Organic remains from Reach, the Isle of Ely and Wilham [Cambridgeshire] (Hailstone, 1816)

* *Twenty four rock specimens from Cambridgeshire, corresponding to this donation to the Geological Society Museum, are now in the Department of Mineralogy, BM(NH). There are Cretaceous fossils at BGS.*

Hakewill, Henry (1771–1830)

20 March 1822 TGS(2) 1 Fossil bones from Stonesfield [Oxfordshire]

11 May 1822 TGS(2) 1 Specimens from the Quarries of Stonesfield [Oxfordshire]

Halifax, Rev. Robert (1760–1838)

19 December 1817 TGS(1) 5 Fossil Pentacrinus from the Lias of Frethern Cliff, on the Severn; fossil chain coral from Ledbury [Hereford and Worcester]

Jurassic fossils at BGS.

Hall, Captain Basil R. N. (1788–1844)

30 April 1830 TGS(2) 3 A mahogany cabinet containing the results of Sir James Hall's experiments on the fusibility of lime, basalt and other rocks [According to the ms record this donation was made in 1833]

Hall, T. M.

18 December 1867 'MS only', argentiferous galena from Crags Down, Combmartin, north Devon

Hambrough, Albert John (1820/1–1861) and L. L. B. Ibbetson

16 February 1844 PGS 4 p. 342 Specimens from Atherfield, Isle of Wight

Cretaceous fossils at BGS.

Hamilton, William John (1805–1867)

17 February 1860 QJGS 16 Fossil fish from the London Clay, and a suite of Recent shells

15 February 1861 QJGS 17 Specimens of Wealden Unios from Tunbridge Wells [Kent]

Cretaceous fossils at BGS.

Hanmer, Edward [M.G.S.]

25 July 1819 TGS(1) 5 Tottenhoe stone

Harding, Colonel William (1792–1886)

22 December 1834 TGS(2) 4 Fossils from the neighbourhood of Ilfracombe (Also reported in PGS 2 p. 131, 20 February 1835. *Letter, W. Harding to W. Lonsdale, 18 December 1834, GSL Mus1/140)*

Devonian fossils at BGS.

Harkness, Professor Robert (1816–1878)

19 February 1864 QJGS 20 Specimen of cone-in-cone structure in slate, from Troutbeck, Keswick [Cumbria]

Ordovician fossils at BGS.

Hardwicke, Major-General Thomas (1756–1835)

16 June 1830 TGS(2) 3 Spongia patera

Harris, William (1797–1877)

21 February 1840 PGS 3 p. 195 Fossils from the Chalk near Charing [Kent] *(Letters, 13 and 17 January 1840, GSL Mus2/51–2)*

26 September 1840 TGS(2) 6 Chalk fossils from the neighbourhood of Charing, Kent (Also reported in PGS 3 p. 373 19 February 1841 *Letters, 19 June and 26 September 1840, GSL Mus2/53–4)*

6 May 1841 TGS(2) 6 Fossils from the Chalk near Charing [Kent] (Also reported in PGS 3 p. 621, 18 February 1842 (*Letter, 19 May 1841, GSL Mus2/55)*

16 February 1844 PGS 4 p. 342 Tooth of an undescribed species of Lamna from the Chalk, Charing, Kent

20 February 1846 QJGS 2 Slab of Paludinae from the Weald at Pluckley [Kent], and corals, shells and foraminifera from the Chalk of Charing, Kent

19 February 1858 QJGS 14 Fossiliferous Ironstone from the North Downs*

18 February 1859 QJGS 15 Specimens of fossiliferous ironstone from Lenham, Kent

* *Five Geological Society Museum rock specimens from a trench at Charing Hill, Kent, are now in the Department of Mineralogy, BM(NH). They illustrate a section on p. 332 of a paper by Prestwich and Wood (1858).*

There are Cretaceous, Tertiary and Quaternary fossils at BGS..

Harvey, Charles (1756/7–1843) [changed name to Charles Savill-Onley]

20 December 1811 TGS(1) 2 Fossil wood from the tunnel at Blisworth, in Northamptonshire

Harvey, Captain [R.E.]

17 February 1860 QJGS 16 Ammonite from near Ventnor [Isle of Wight]

Cretaceous fossils at BGS.

Harvey, George (d.1838)

27 September 1836 TGS(2) 5 and PGS 2 p. 464 Fossils from the limestone of Teignmouth [Devon. Noted in TGS(2) 5 as from a J. K. Harvey]

Devonian fossils at BGS.

Hastie, James (fl.1841–1855)

18 February 1848 QJGS 4 Vertebrae of Otodus appendiculatus in chalk, from Dorking [Surrey]

Cretaceous fossils at BGS.

Haughton, Rev. Professor Samuel (1821–1897)

15 February 1856 QJGS 12 Specimens of ferns, &c. in the yellow sandstones of Ireland

Devonian fossils at BGS.

Hawkes, W.

18 February 1859 QJGS 15 A series of molten specimens of the Rowley Basalt (Hawkes, 1859)

Hawkshaw, Sir John (1811–1891)

Coal Measures plants from near Manchester at BGS

Carboniferous fossils at BGS.

Head, Sir Edmund Walker (1805–1868)

3 September 1826 TGS(2) 2 Specimens of grauwacke with fossil shells from the summit of Snowdon

Heathfield, Richard A. jun. (d.1849)

6 April 1827 TGS(2) 2 Echini from the Chalk

Heer, Oswald (1809–1883)

Recent plants from Ulverston, Cumbria, at BGS.

Henderson, Dr Alexander (1780–1863)

27 November 1821 TGS(2) 1 Granite from Aberdeenshire

Hennah, Rev. Richard (1765–1846)

12 November 1815 TGS(1) 3 Plymouth Limestone with organic remains (See Hennah, 1817. *Letter, R. Hennah to H. Warburton, 25 March 1815, GSL Mus1/61)*

14 April 1820 TGS(1) 5 Fossils from the Plymouth Limestone (Hennah, 1821)

11 October 1821 TGS(2) 1 Impressions of Encrini in schist, from Plymouth [Devon]

17 November 1826 TGS(2) 2 Fossils from the Plymouth Limestone (Hennah, 1827)

October 1829 'MS only' Specimens from Plymouth, Devon (*List of specimens sent to the Geol. Soc. from Plymouth, October 1829, GSL Mus1/138*)

December 1840 TGS(2) 6 Fossils from the Plymouth Limestone (Also reported PGS 3 p. 373, 19 February 1841)

16 February 1844 PGS 4 p. 342 Corals from the Devonian Limestone, Plymouth [Devon] *(Letter, R. Hennah to R. I. Murchison, 7 February 1843, GSL LR7/329)*

Devonian fossils at BGS.

Hennah, Rev. William V.

25 October 1814 TGS(1) 3 Limestone with fossil shells from Plymouth 7 June 1816 TGS(1) 3 Plymouth Limestone with organic remains 21 February 1840 PGS 3 p. 195 Portions of a tortoise from the freshwater strata of East Cowes, Isle of Wight *(Letter, W. Hennah, 19 August 1839, GSL Mus2/29)*

8 June 1846 'MS only' Crinoidea and quartz from Cork; fossils in slate from Ireland; specimens from Torquay*

19 February 1847 QJGS 3 Collection of Devonian shells and crinoidal remains, made by the late Rev. Richard Hennah and the Rev. W. V. Hennah *(Letter, 6 May 1846, GSL LR9/242)*

* *Four former Geological Society Museum rock specimens attibutable to the Rev. W. V. Hennah, including one from Torquay, are extant in the Department of Mineralogy, BM(NH).*

There are Devonian and Carboniferous fossils at BGS.

Henslow, Rev. John Stephens (1796–1861)

18 September 1819 TGS(1) 5 Specimens from Isle of Man (Henslow, 1821)

April 1820 'MS only' Fossils from the Greensand near Maidstone, Kent

5 June 1821 TGS(1) 5 Specimens of Paludina Ventricosa (Leach)

19 April 1822 TGS(2) 1 Specimens from Anglesea*

16 February 1844 PGS 4 p. 343 Casts of the tympanic bones of Cetacea from the Red Crag of Felixstow [Suffolk] (Henslow, 1845)

21 February 1862 QJGS 18 Two specimens of flint with mammillated surface from church-tower, in illustration of Mr Rose's observations, published in the Proc. Geol. Assoc., No5, p. 624.

* *Ten rock specimens corresponding to this donation to the Geological Society of London Museum, from Plas Newydd, Anglesey, are extant in the Department of Mineralogy, BM(NH).*

Carboniferous and casts of Pleistocene fossils at BGS.

Henwood, William Jory (1805–1875)

8 June 1831 TGS(2) 3 Specimens collected in the mines in the parishes of St. Just, Paul and Gulvall, Cornwall *(Letter, W. J. Henwood to W. Lonsdale, 6 May 1831, GSL Mus1/113)*

28 November 1831 TGS(2) 3 and PGS 1 p. 351 Additional specimens illustrative of the mines of Cornwall *Letters, W. J. Henwood to W. Lonsdale, 18 June and 14 November 1831, GSL Mus1/114–5)*

21 February 1834 PGS 2 p. 25 Mineral veinstone from Cornwall

4 May 1842 TGS(2) 6 Fossils from the Mountain Limestone, Ireland. (Also reported in PGS 4 p. 49, 17 February 1843)

Herbert, Joseph
4 November 1808 TGS(1) 1 Specimens from Sussex
5 January 1810 TGS(1) 1 Specimens from the vicinity of Bristol &c. *(List of Coalfield specimens, 5 January 1810, GSL LDGSL27/10)*
2 February 1810 TGS(1) 1 Specimens from the Isle of Shepey &c.
6 April 1810 'MS only', specimens from the neighbourhood of Bristol ‹Sussex, Suffolk &c.›
21 December 1810 TGS(1) 1 Fossil bones found at Walton, Essex *(Note on fossil bones, 6 December 1810, GSL Mus1/21*

Herschel, Sir John Frederick William (1792–1871) and Captain T. Longworth Dames
16 February 1866 QJGS 22 Rhomboidal specimens of Clay Ironstone and Ironsandstone from the Collingwood and Clanmullen Quarries (Herschel, 1865)

Hesletine, S. R.
17 November 1838 TGS(2) 5 Fossil turtle, from Harwich [Essex] (Also reported in PGS 3 p. 46, 15 February 1839)

Heuland, John Henry (1778–1856)
18 June 1813 TGS(1) 2 Simple minerals
22 February 1815 TGS(1) 3 Twenty one specimens of simple minerals
15 December 1820 TGS(1) 5 Axinite from Botallack Mine, Cornwall and quartz from Beeralston, Devon

Hewett, George
4 January 1819 TGS(1) 5 Fossils from Altofts, near Wakefield [W.Yorkshire] ‹mostly impressions of vegetables in sandstone› *(Letter, G. Hewett to H. J. Brooke, 28 December 1818, GSL Mus1/2)*
Carboniferous fossils at BGS.

Hicks, Dr Henry (1837–1899)
15 February 1878 QJGS 34 Specimens of Paradoxides davidis, Conocoryphe lyellii, &c, and a series of rock-specimens of the Pebidian and Dimentian Formations of St David's, South Wales (Hicks, 1877)
Cambrian fossils at BGS.

Higgins, Godfrey (1773–1833)
16 June 1823 TGS(2) 1 Specimens from Stonehenge

Hill, C. [of Cirencester]
17 February 1860 QJGS 16 Two specimens of Hyboclypus from the Cornbrash

Hill, H.
Ordovician rocks from Carmarthenshire at BGS

Hills Mr [of Chichester]
21 February 1845 PGS 4 p. 534 Specimen of Pholadomya gigantea from the Lower Greensand
Cretaceous fossils at BGS.

Hincks, Rev. Thomas (1818–1899)
6 November 1812 TGS(1) 2 Asbestos and black chalk from Ireland

Hobbins, Joseph (d.1894)
17 February 1854 QJGS 10 Stigmaria, from Wednesbury [W.Midlands]
Carboniferous fossils at BGS.

Hobson, William (fl.1808–1831)
8 December 1830 TGS(2) 3 and PGS 1 p. 261 Remains of the elephant, rhinoceros, horse, ox &c. from Kingsland, Middlesex *(Letter, 15 December 1830, GSL Mus1/148)*

Hodgson, Miss E. [of Ulverston]
20 February 1863 QJGS 19 Specimens of rocks from near Ulverston, Lancashire (Hodgson, 1863)*
* *Nine specimens of rock and earth illustrating this paper are extant in the Department of Mineralogy, BM(NH). There is also a letter to Miss Hodgson from E. Wadnam which was found with the collection.*
Recent plants are at BGS.

Holden, John Sinclair (fl.1869–1879
Tertiary fossils from Ireland at BGS

Holdsworth, Thomas Hodgson (d.1840)
29 January 1831 TGS(2) 3 and PGS 1 p. 261 Coal from Bovey Tracey, and minerals from Haytor Mine [Devon] *(Letter, 29 January 1831, GSL Mus1/179)*
13 December 1831 TGS(2) 3 and PGS 1 p. 352 Specimens found in the clay-iron-stone of the New Hadley-Iron-Works near Wilmington, Shropshire
17 February 1832 PGS 1 p. 352 Childrenite from Cornwall
25 February 1832 TGS(2) 3 Minerals from Devonshire and Cornwall (Also reported in PGS 1 p. 426, 15 February 1833. *Letter, T. H. Holdsworth to W. Lonsdale, n.d. GSL Mus1/183)*
10 April 1832 TGS(2) 3 Specimens from Charnwood Forest [Leicestershire] (Also reported in PGS 1 p. 426, 15 February 1833. *Letter, T. H. Holdsworth to W. Lonsdale, n.d. GSL Mus1/176)*
29 April 1835 TGS(2) 4 Specimens of British Minerals (Also reported in PGS 2 p. 341, 19 February 1836)*
* *These minerals, at one time in the Geological Society Museum, include fluorite from Beer Alston, Devon, now BM1911,554, and 'Jews House Tin' (BM1911,545) from Bedelva Moor, Luxullian, Cornwall. Also chalcopyrite (BM1911,544) from Dolcoath Mine, Camborne, and cassiterite (BM1911,560) from Beam Mine (Carclaze Mine), Cornwall. Cuprite from Lanescort Mine, Lostwithel, Cornwall, is now BM1911,563. There is also azurite (BM1911592) from the Quantock Hills, Somerset, and malachite (BM1911,594) from the same locality. Childrenite from Old Crimms Mine, St Austell, Cornwall, is now BM1911,609. Specimen of cassiterite (BM1911,562) from Wheal Malken, and of cuprite (BM1911,563) from Lanescot Mine, Cornwall, also survive in the BM(NH).*
Carboniferous fossils exist at BGS.

Holland, Henry (1788–1873)
5 May 1809 TGS(1) 1 Specimens of the strata from a rock-salt mine at Northwich, Cheshire (Holland, 1811)*
* *Six rock specimens from Witton, near Northwich, which correspond to this donation, are extant in the BM(NH).*

Holland, Samuel, junr. [of Plas yr Penrhyn, Portmadoc]
21 February 1845 PGS 4 p. 534 Specimen of Asaphus Powisii from Phwllheli, Caernarvonshire
Ordovician fossils at BGS.

Holloway, Jno junr.
1 June 1810 TGS(1) 1 Specimens of fossil shells from the coast of Sussex *(Letter, J. Holloway to J. Laird, 3 May 1810, GSL Mus1/23)*

Holme, Rev. John (1759/60–1829)
22 February 1815 TGS(1) 3 Specimens from a chalk-pit at Reach, near Cambridge
17 May 1816 TGS(1) 3 Specimens from the neighbourhood of Cambridge.
6 June 1816 'MS only' Section of a chalk pit at Sudbury, near Cambridge
7 June 1816 TGS(1) 3 Harmotome from Strontian, Argyleshire, and of Lepidolite in primitive limestone from Scotland
20 February 1818 TGS(1) 5 Manganese in chalk ‹from the parishes of Mildenhall and Freckenham, Suffolk›. *(Notes on specimens, n.d. GSL Mus1/85)*
20 January 1819 TGS(1) 5 Chalk and mulatto stone altered by whin dykes from Belfast, in Ireland; specimens from Cumberland ‹listed in detail in the Waste Book, 14767–14778›
24 May 1819 TGS(1) 5 Flint and fossil shell from Isleham gravel pits near Harwich [Essex]
4 March 1820 TGS(1) 5 Septaria from Harwich and chert from the limestone of Warnell Fell [Cumbria]; carbonate of lime from Strontian [Scotland]; lepidolite from Dalmally; a horn found in a barrow, near the Red Lodge, 5 1/2 miles from Newmarket [Suffolk] ‹accompanied by human bones›.
26 June 1823 TGS(2) 1 Carbonate of zinc disseminated through clay from Red Marl, Salturn Bay [Cumbria]
3 February 1824 TGS(2) 2 Stone from Godstone, with an analysis
20 May 1825 TGS(2) 2 Grey cobalt containing 11 per cent of Zaffre, from Black Combe, Cumberland
* *A specimen of calcite from Strontian, Argyll, corresponding to this donation of March 1820, is now BM1911,573.*
Carboniferous and Tertiary fossils are at BGS.

Homfray, David (1822–1893)
Cambrian fossils from north Wales at BGS

Hony, Rev. William Edward (1788–1875)
18 April 1817 TGS(1) 4 Grauwakke with impressions of shells from ‹near Ashburton,› Devonshire
Devonian fossils at BGS.

Hope, Rev. Frederick William (1797–1862)
Fossils from the London Clay of Sheppey, Kent, and Bognor Regis at BGS.

Hore, Rev. William Strong (1807–1882)
17 February 1843 PGS 4 p. 50 Devonian fossils from Whitesand Bay near Plymouth [Devon]
Devonian fossils at BGS.

Horner, Francis (1778–1817)
21 December 1810 TGS(1) 1 Specimens of Alum Slate in different stages of decomposition from the Campsie Hills in Stirlingshire

Horner, Leonard (1785–1864)
6 May 1808 TGS(1) 1 Specimens from the tunnel at Rotherhithe, and from the neighbourhood of Greenwich
4 November 1808 TGS(1) 1 Specimens from Kent and Surrey
15 March 1811 TGS(1) 1 Specimens illustrative of the Malvern Hills (Horner, 1811)* *(Descriptive catalogue, BMNHP P Mss, Geol. Soc. List of specimens)*
20 December 1811 TGS(1) 2 Specimens from Warwickshire
17 April 1812 TGS(1) 2 Specimens in illustration of Mr Horner's paper on Droitwich (Horner, 1814)

21 May 1813 TGS(2) 1 Zeolites from Ferroe [Faeroes] and Perthshire (*List of Minerals, 13 May 1813, GSL Mus 1/198*)
2 December 1814 TGS(1) 2 Specimens from Dudley, from Kinnoul, and from the Pentland Hills and Salisbury Crags; and recent shells
23 December 1814 TGS(1) 3 Specimens of Zeolite from Ferroe, of Derbyshire spar and of slate from Ingleton [N. Yorkshire]
28 December 1814 TGS(1) 3 Miscellaneous specimens from the Giant's Causeway, Carlisle &c.
Early 1815 'MS only' Siliceous puddingstone
3 March 1815 TGS (1) 3 Specimens from Somersetshire (Horner, 1816)* 21 February 1840 PGS 3 p. 195 Slates
21 February 1862 QJGS 18 313 specimens of British rocks and fossils

* *Over one hundred rock specimens corresponding to Horner's Somerset donation to the Geological Society Museum, survive in the Department of Mineralogy, BM(NH). In addition some twenty specimen labelled 'Malvern' are extant. Rock specimens from Devon, illustrating a paper by Horner (1854), also exist. A mineral specimen of 'calamine' (smithsonite), now BM1911,595, from Holywell, Flint, is recorded in the BM(NH) records as having been given to the Geological Society in 1808. Silurian and Recent fossils at BGS.*

Howse, Richard (1821–1901)
19 February 1858 QJGS 14 Specimen of Marl Slate with Lingula Credneri
Permian fossils at BGS.

Hudson, ?Robert (ob.1883)
Ammonite from Chalk and fossils from the Bracklesham Beds at BGS

Hume, Sir Abraham (1749–1838)
16 November 1810 TGS(1) 1 A mass of Puddingstone from Hertfordshire
20 March 1812 TGS(2) 1 Septarium from Hertfordshire
15 May 1812 TGS(1) 2 Specimens of Magnesian Limestone from Sunderland
18 December 1812 'MS only', specimens from Hambeck stone pit at Wilsford in Lincoln (*Letter, G. B. Greenough to [T. Webster], 17 December 1812, GSL Mus1/37*)

Hunter, Rev. John (1788–1866)
15 February 1861 QJGS 17 Slab of Old Red Sandstone from Mill of Ash

Hunter, Robert (d.1866/7)
18 December 1832 TGS(2) 3 Portion of a metacarpal bone of an Ox, from the peat of Woolhampton, between Reading and Newbury (Also reported in PGS 1 p. 427, 15 February 1833. *Letter, 14 December 1832, GSL Mus1/174*)

Hunter, William Percival (b.1812)
5 April 1837 TGS(2) 5 and PGS 2 p. 608 Polished specimens of the limestone of Kilkenny, and a boulder of the Hertfordshire pudding-stone; and granite from Newry, on the road to Belfast (*Letter, 11 March 1837, GSL LR3/54*)
19 April 1837 TGS(2) 5 and PGS 2 p. 608 Specimens from the Coal Measure of Burdie House, and limestone from Glen Tilt
1 May 1837 TGS(2) 5 and PGS 2 p. 608 Specimens of granite, and of garnets in mica slate, from between Dunkeld and Blair
Carboniferous fossils at BGS.

Hutton, William (1797–1860)
4 January 1828 TGS(2) 2 Specimens of fossil vegetables from the Northumberland and Durham Coal Field (Also reported in PGS 1 p. 47, 15 February 1828. See also *Remarks on the collection, 1827, GSL Mus 1/19*)

12 June 1829 TGS(2) 3 Fossil plants from the Northumberland and Durham Coalfield (Also reported in PGS 1 p. 177, 19 February 1830.
Notes on fossil plants, 1 June 1829, GSL Mus1/153)
7 September 1830 TGS(2) 3 Fossil tree specimens from Wideopen [Tyne and Wear] (Also reported in PGS 1 p. 260, 18 February 1831. *Description of a fossil tree, February 1830, GSL Mus2/20)*
Carboniferous fossils at BGS.

Ibbetson, Levett Landon Boscawen (d.1869)
21 March 1838 TGS(2) 5 Stratigraphical model of the Under Cliff, Isle of Wight

Ibbetson, L. L. B. and A. J. Hambrough. See Hambrough & Ibbetson

Ibbetson, L. L. B. and Professor Forbes
21 February 1845 PGS 4 p. 534 Fossils from the Lower Greensand at Atherfield, Isle of Wight (Ibbetson & Forbes, 1845)
Cretaceous fossils at BGS.

Ick, William (1800–1844)
Carboniferous crustaceans at BGS (Ick, 1845)

Image, Rev. Thomas (1772–1856)
21 February 1845 PGS 4 p. 534 Terebratulae from the Chalk and Gault of Cambridgeshire
Cretaceous fossils at BGS.

Imrie, Lieut Colonel Ninian
1 June 1810 TGS(1) 1 Specimens illustrative of his section of the Grampian Hills [Scotland]

Indermaur, Mr
10 June 1841 TGS (2) 6 Fossils from the Lower Greensand, Maidstone (Also reported in PGS 3 p. 621, 18 February 1842)

Irton, Edward L.
19 June 1812 TGS(1) 2 Tubes found in the sand at Drigg, in Cumberland (Irton, 1821)
6 November 1812 TGS(1) 2 Sand tubes from Drigg [Cumbria] (Irton, 1821)

Jackson, E. Ward
20 February 1857 QJGS 3 Specimens of Kimmeridge coal

Jackson, G.
21 February 1862 QJGS 18 Specimens of Mountain-limestones (rocks and fossils) from cuttings at Casterton, near Kirkby Lonsdale, on the line of the Lune Valley Railway [Cumbria]

Jaffray, Alexander
2 June 1808 TGS(1) 1 Specimens of the strata found in sinking a coal mine in the neighbourhood of Newcastle-under-Line [Newcastle-under-Lyme, Staffordshire] (*List of specimens, May 1808, GSL Mus1/59*)
3 November 1809 TGS(1) 1 Specimens from Malvern Hills [Hereford and Worcester]
19 April 1811 TGS(1) 1 Specimens from Mowcap, Staffordshire, ‹the Malvern Hills and the neighbourhood of Exeter›
3 May 1811 TGS(1) 1 Coal-blende and black Chalk, from the County of Tipperary

James, William
2 June 1808 TGS(1) 1 Vegetable remains on coal slate from Somersetshire

Jameson, Mr J. [of Islington]
21 February 1855 QJGS 11 Specimen of slate from Westmoreland, and a specimen of coked straw

Janson, Edmund William (fl.1895–1905)
Liassic fossils from near Bath, Avon, at BGS

Jenner, Dr Edward (1749–1823)
4 November 1814 'MS only', amygdaloid and calcedony from Glouecestershire and Lias fossils from the same (*Note on specimens from Westbury on Severn, n.d., GSL Mus1/71*)

Johnson, Thomas (d.c1833)
25 March 1830 TGS(2) 3 Native platina and native iridium with native alloy of iridium and osmium

Jones, J. R.
21 February 1812 TGS(1) Supposed native lead from Holywell, N. Wales

Jones, Captain Theobald (1790–1868)
6 May 1841 TGS(2) 6 and PGS 3 p.620 Specimen of Chaetetes radiatus from the Mountain Limestone of Castle Espie Quarry, County Down
31 August 1841 TGS(2) 6 and PGS 3 p. 620 Palatal teeth of fishes from Armagh
16 February 1844 PGS 4 p. 342 Palatal remains, teeth and spines of 42 species of fish from the Carboniferous Limestone of Armagh
21 February 1845 PGS 4 p. 534 A collection of palatal and other remains of fish from the Carboniferous Limestone of Armagh
20 February 1846 QJGS 2 Palates, teeth and spines of fish from the Carboniferous Limestone of Armagh
15 February 1850 QJGS 6 Specimens of fossil fishes from the Mountain Limestone of Armagh
20 February 1852 QJGS 8 32 Specimens of fish-remains, from the Carboniferous Limestone of Armagh
Carboniferous fossils at BGS.

Jones, Professor Thomas Rupert (1819–1911)
15 February 1861 QJGS 17 Specimens of pseudomorphs of salt in Keuper sandstone, from Deerhurst [Gloucestershire]
19 February 1875 QJGS 31 Specimens of Woolwich and Reading Beds near Reading, Berks (Jones & King, 1875)
A large collection of fossils at BGS.

Jones, William [of Ludlow]
1 February 1833 TGS(2) 3 Specimens of Ludlow rock (Also reported in PGS 1 p. 427, 15 February 1833)

Jones, William Rupert (1855–1915)
Fossils from the Gault and Lower Greensand of Kent at BGS

Jordan, Henry Keyes (1838–1923)
16 February 1877 QJGS 33 Coal pebbles (Jordan, 1877)
Carboniferous fossils at BGS.

Jukes-Browne, Alfred John (1851–1914)
19 February 1875 QJGS 31 Some Cretaceous fossils from Cambridgeshire (Jukes-Browne, 1875)
Cretaceous fossils at BGS.

Kater, Captain Henry (1777–1835)
1 December 1826 TGS(2) 2 Impression of a vegetable stem on sandstone from the gritstone quarries at Wickersley, near Rotherham [S.Yorkshire]

Keir, James (1735–1820)
18 January 1811 TGS(1) 1 Specimens from a shaft sunk in Tividale colliery, near Dudley [W.Midlands] *(Description of specimens, 1810, GSL Mus1/10; Letter, 10 December 1810, GSL Mus1/106)*

Kent, Samuel Luck (d.1845)
3 November 1815 TGS(1) 3 Calcareous incrustations from Coton, near Cambridge

Kenyon, John (1784–1856) (in the name of the late Mrs Kenyon)
6 October 1835 TGS(2) 5 Ammonites perarmatus and fossils from the Chalk, Upper Greensand, &c. (Also reported in PGS 2 p. 342, 19 February 1836)
Jurassic and Cretaceous fossils at BGS.

Kerry, Mr
Carboniferous Limestone fossils from Northumberland at BGS

Killaly, Richard Griffith (d.1860)
1 February 1833 TGS(2) 3 Specimens of fossil fishes from Mansfield, [Nottinghamshire]

Kirshaw, John William (fl.1847–1873) [FGS]
16 February 1849 QJGS 5 Plagiostoma hermanni, from the Lower Lias, Warwickshire
19 February 1864 QJGS 20 Specimens of corals from the lower beds of the Middle Lias, from near Cherrington, Warwickshire
Jurassic fossils at BGS.

Knight, Richard (1768–1844)
18 December 1833 TGS(2) 4 Asbestus
3 February 1835 TGS(2) 4 Porcelain Jasper from the Junction of the Sandstone and Trap Rock of Stirling Castle [Scotland] (Also reported in PGS 2 p. 131, 20 February 1835)

Knipe, J. A.
15 February 1856 QJGS 12 Iron ore from Waltham on the Wolds [Leicestershire]

Koche, Dr
Devonian gastropods at BGS.

Knox, Rt. Hon. George (d.1827)
16 May 1823 TGS(2) 1 Newry Pitchstone, Andalusite from the County of Dublin and killinite from the County of Dublin
8 April 1824 TGS(2) 2 Fossils from the Dublin Limestone
Carboniferous fossils at BGS.

Krantz, Dr August (1809–1872)
15 February 1856 QJGS 12 Specimens of allophane from the Charlton Chalk Pit [Kent]

Laine, M.
1 June 1810 TGS (1) 1 Specimens from the Isle of Shepey [Kent]

Laird, James (d.1840)
5 May 1809 TGS(1) 1 Rock salt from Northwich, [Cheshire], in illustration of Mr Holland's account of that district (Holland, 1811)
21 June 1811 TGS(1) 1 Sulphate of strontian, found in the neighbourhood of Bristol, and limestone from St Vincents Cliffs &c. [Bristol]

1 November 1811 TGS(1) 2 Specimens from the neighbourhood of Weymouth [Dorset]
5 May 1815 TGS(1) 3 ‹Mammillated› Calcedony
20 January 1836 TGS(2) 5 Fossils from Bognor [Regis, W. Sussex] (Also reported in PGS 2 p. 342, 19 February 1836. *Letter, J. Laird to W. Lonsdale, 18 December 1835, GSL Mus1/88.*)
1 February 1838 TGS(2) 5 Specimens from Bognor
1 June 1838 TGS(2) 5 and PGS 3 p. 45 Fossils from Bognor
Tertiary fossils at BGS.

Lambert, Alan (1837–1928)
17 February 1865 QJGS 21 A series of Cretaceous fossils from Dover [Kent]; Specimens of Nautili from the London Clay; and an Apiocrinite from the Bradford Clay
Jurassic and Cretaceous fossils at BGS.

Lambert, Aylmer Bourke (1761–1842)
22 October 1824 TGS(2) 2 Impressions of vegetables in coal shale, from Camerton, near Bath [Avon]
19 February 1830 PGS 1 p.178 Jaw-bone of a horse; Jaw-bone of a stag, and other bones found in digging the foundation of Staines Bridge [Surrey]

Lambert, Josias (d.1855)
26 March 1830 TGS(2) 3 and PGS 1 p. 260 Specimens from the coal basin of South Wales

Lambert, Rev. James
21 April 1815 'MS only', phosphat of iron on a recent Mytilus anatinus

Lamplugh, George William (1859–1926) and J. F. Walker (1839–1907)
19 February 1904 QJGS 60 A series of fossil brachiopoda from the fossiliferous band at the top of the Lower Greensand at Shenley Hill, near Leighton Buzzard [Bedfordshire]
Cretaceous fossils at BGS.

Lane, Mrs
18 April 1832 TGS(2) 3 Recent shells from the coast of Devonshire (Also reported in PGS 1 p. 427, 15 February 1833)

Lankester, Edwin Ray (1847–1929)
8 June 1869 'MS only', fossils from the Suffolk Tertiaries (Lankester, 1870)
Pleistocene fossils at BGS.

Lawson, John (1824/5–1873)
15 February 1867 QJGS 23 A piece of an iron water-pipe from Bath, containing a calcareous incrustation

Lea, I.
13 August 1852 'MS only', cast of footsteps of Sauropus primaevus

Leach, Henry
Carboniferous fossils from Pembrokeshire at BGS

Leach, William Elford (1790–1836)
16 April 1819 TGS(1) 5 Cavernous quartz encrusted with iron carbonate and manganese (*Letter, W. E. Leach, 1 April 1819, GSL Mus1/72*)

Le Courteur, Mrs Major-General
21 October 1837 TGS(2) 5 Specimen of ficoides

Lee, H. M. [of Wisbech]
20 February 1846 QJGS 2 Fossils from the Great Oolite, Kate's Cabin in Peterborough
19 February 1847 QJGS 3 Specimens of Tellina and Ostrea from March in Cambridgeshire
Jurassic and Pleistocene fossils at BGS.

Lee, John (1783–1866)
13 May 1833 TGS(2) 3 Cast of the paddle of the Plesiosaurus found at Bedford (Also reported in PGS 2 p. 28, 21 February 1834 *Notes on Plesiosaurs, 29 March 1833, GSL Mus2/71)*
19 February 1847 QJGS 3 Fossil shells from the Kimmeridge Clay of Hartwell, Buckinghamshire
Jurassic fossils at BGS.

The Leeds Philosophical Society
6 June 1832 TGS(2) 3 Cast of a fish found in the Coal Measures near Leeds [W.Yorkshire] (Also recorded in PGS 1 p. 427, 15 February 1833)

Leigh, J.
December 1835 'MS only' Fossils from the marl near Manchester (*Letter, J. Leigh to R. I. Murchison, 16 December 1835, GSL Mus2/28*) (Leigh & Binney, 1836)
Permian fossils at BGS.

Leigh, Mr [Lea in ms minutes]
21 January 1835 TGS(2) 4 Casts from Flambro' Head, [Humberside] of Spongeous Zoophites (Also reported in PGS 2 p. 131, 20 February 1835)

Lewis, Thomas Frankland (1780–1855)
7 December 1825 TGS(2) 2 Specimens from Radnorshire
21 April 1826 TGS(2) 2 Rocks from Radnorshire

Lewis, Rev. Thomas Taylor (1801–1858)
1 February 1833 TGS(2) 3 Fossils from the Transition Limestone of Shropshire and Herefordshire (Also reported in PGS 1 p. 427, 15 February 1833) (*Letters, R. I. Murchison to T. T. Lewis 16 Dec 1831 and Lewis to Murchison, 21 Dec 1831 and 7 Feb 1832, GSL ML7/1,2*)
12 March 1834 TGS(2) 4 Corals from Aymestry [Hereford and Worcester] (Also reported in PGS2 p. 130, 20 February 1835 with the donation below)
25 April 1834 TGS(2) 4 A large specimen of the polished Limestone found near Gwinfe in Caermarthenshire (Also reported in PGS 2 p. 130 20 February 1835 with the donation above)
17 February 1843 PGS 4 pp. 49–50 Specimens of the Ludlow 'Bone-bed' from beneath the Downton Castle Building-stone, Brindgwood [Shropshire]
Ordovician and Silurian fossils at BGS.

Lindsey, Dr
Gault fossils from Folkestone, Kent, at BGS

Lister, George
July [1820s] 'MS only' Specimens from Louth, Lincolnshire (*Letter, G. Lister to T. Webster, 9 July n.y., GSL Mus1/159*)

Lock, George
Coal Measure plants from Little Hulton, Lancashire, at BGS.

Long, William (d.1875)
18 February 1848 QJGS 4 Specimens of teeth from Kent's cavern [Torquay, Devon]
(Letter, W. Long to J. C. Moore, 8 June [1847], GSL LDGSL30)
Tertiary and Quaternary fossils at BGS.

Longworth Dames, Captain T. and Sir J. F. W. Herschel. See Herschel and Longworth Dames

Lonsdale, Edgar
21 November 1871 'MS only', a collection of fossil corals belonging to the late Mr Wm. Lonsdale

Lonsdale, William (1794–1871)
19 February 1841 PGS 3 p. 368 Rock specimens from the various subdivisions of the Lias and Oolite formations
There are about four hundred rock specimens from the Geological Society Museum surviving in the Department of Mineralogy, BM(NH). Rock material connected with a paper by Lonsdale (1832) has been traced in this collection.
There is a large collection of fossils at BGS.

Lord, Captain ?William Keast (1818–1872)
19 February 1858 QJGS 14 Crystals of carbonate of iron from Virtuous Lady Mine, Devon*
* *A specimen of siderite from this locality (now BM1911,576) survives in the Department of Mineralogy, BM(NH)*

Lousada, Miss
23 February 1837 TGS(2) 5 A collection of British and foreign specimens (Also reported in PGS 2 p. 607, 16 February 1838)

Lovell, Robert [M.D., of Bristol]
3 November 1809 TGS(1) Specimen of wood and other remains from the new cut for the River Avon at Bristol

Lowe, Mrs
17 February 1843 PGS 4 p. 50 Crioceratite from the Kelloway Rock, and other fossils from the Oxford Clay near Chippenham [Wiltshire]
Jurassic fossils at BGS.

Lowe, William
14 December 1821 TGS(2) 1 Specimens from Jersey

Lowndes, William [of London]
4 March 1814 'MS only' Specimens from Somersetshire
4 March 1814 TGS(1) 2 Molybdena in granite from Shap, in Westmoreland

Lowry, Wilson (1762–1824)
16 November 1810 TGS(1) 1 Specimens from Isle of Portland [Dorset]

Lubbock, Sir John William (1803–1865)
2 May 1821 TGS(1) 5 Fossil shells from Plaistow near Bromley [London]
5 February 1830 TGS(2) 3 Neck of a Whale found in making St. Katherine's Dock [London]
December 1840 TGS(2) 6 and PGS 3 p. 373 Chalk Fossils from Sutton [Surrey]
Pleistocene fossils at BGS.

Lunn, Francis (1795–1839)
6 June 1819 TGS(1) 5 Specimens from Cambridgeshire (Lunn, 1819)*
* *Four Geological Society Museum rock specimens from Long Storr, and one from*

Gog and Magog Hill, Cambridgeshire, survive in the Department of Mineralogy, BM(NH).

Lushington, J. E.
21 November 1828 TGS(2) 2 A Turrilite from Eastbourne [E.Sussex]
Cretaceous fossils at BGS.

Lyell, Sir Charles (1797–1875)
19 April 1822 TGS(2) 1 Specimens of English Strata *(Catalogue of specimens, n.d. GSL LDGSL27/16)*
6 February 1823 TGS(2) 1 Specimens of fossils from the Stonesfield Slate
17 February 1823 TGS(2) 1 Specimens illustrative of a section of Stammerham and Sedgewick Quarry, near Horsham [W.Sussex]; Specimens from the Chalk near Dorking [Surrey]
2 May 1823 'MS only', Petworth Marble
3 May 1823 'MS only', Rocks from Surrey and Sussex, ‹catalogued in detail in the Waste Book, 18636–18664›
16 June 1823 'MS only', specimens from beds immediately beneath the Chalk, near Guildford, Surrey
26 June 1823 TGS(2) 1 Specimens from Forfarshire, N. Britain
2 March 1824 TGS(2) 2 Fossils from Stonesfield Slate
1 December 1824 TGS(2) 2 Various specimens of the Oolitic Series of Oxfordshire *(Catalogue of specimens, n.d. GSL Mus1/84)*
16 December 1824 TGS(2) 2 Freshwater rock-marl, and recent shells from the county of Forfar (Lyell, 1826)
21 January 1825 TGS(2) 2 Specimens of marl and of the shells found in it, from near Romsey [Hampshire]
18 March 1825 TGS(2) 2 Specimens from the Brora coal-field, Sutherlandshire, and Chalk flints from Aberdeenshire [Lyell visited Brora in 1824, according to Murchison (1827).] *(Manuscript material, corresponding to this donation, survives in the Department of Mineralogy, BM(NH)).*
9 April 1825 'MS only', specimens from the Lower Freshwater Formation, Whitecliff Bay, Isle of Wight
1 May 1825 TGS(2) 2 Specimens of serpentine and sandstone from Forfarshire; serpentine from Portsoy; elvan porphyry from Cornwall; serpentine, greenstone and diallage rock from Cornwall.
20 May 1825 TGS(2) 2 Specimens from Clunie, Perthshire
17 February 1826 TGS(2) 2 Specimens from Pool Bay and Studland Bay [Dorset] (Lyell, 1827*a*, 1827*b*)*
16 March 1867 'MS only', fossils from the Red Crag
* *Upward of ten specimens (there are over thirty likely specimens corresponding to this donation to the Geological Society, but many are unlabelled) from the Christchurch Head and Studland Bay area are extant. Also surviving are seven from the Guildford – Dorking area of Surrey, and one from Reading, Berkshire.*
There are Jurassic, Tertiary and Quaternary fossils at BGS.

MacCulloch, Dr John (1773–1835)
17 April 1812 TGS(1) 2 Specimens in illustration of Dr MacCulloch's paper on bitumen (MacCulloch, 1814*a*)
6 November 1812 TGS(1) 2 Specimens in illustration of Dr MacCulloch's paper on the vitrified forts (MacCulloch, 1814*b*)
18 December 1812 TGS(1) 2 Specimens from Ireland and Scotland (MacCulloch, 1814*c*)

19 February 1813 TGS(1) 2 Specimens illustrating the junction of greenstone and sandstone, Stirling Castle [Scotland] (MacCulloch, 1814*d*)
4 March 1814 'MS only' Specimens from Kinnoul [Scotland] described in his paper (MacCulloch, 1817*b*)
6 May 1814 TGS(1)2 White marble from Strath, in the island of Sky [Skye] (MacCulloch, 1816*a*)
3 June 1814 'MS only', specimens showing conversion of cast iron into plumbago by long exposure to common porter
6 January 1815 TGS(1) 3 Tremolit and Sahlite, from Glen Tilt [Aberdeen] (MacCulloch 1816*b*)
6 January 1815 TGS(1) 3 Cast from a crystal of blue topaz weighing 15oz, found in the mountains of Mar, Aberdeenshire
19 May 1815 TGS(1) 3 Contorted limestone from Glen Tilt [Aberdeen] (MacCulloch, 1816*b*)
16 November 1815 TGS(1) 3 Specimens from Western Islands of Scotland* (MacCulloch, 1816*a*) *(Letter, J. MacCulloch to W. Webster, 10 [November 1815] GSL Mus1/5)*
26 February 1816 TGS(1) 3 Granite and mica-slate from Glen Tilt [Aberdeen] (MacCulloch 1816*b*)
6 December 1816 TGS(1) 4 Five series of specimens from the Isles of Skye* and Rasay*, of gneiss, siliceous schist, actinolite, and sandstone (MacCulloch 1817*a*)
1 January 1817 TGS(1) 4 Hypersthene rock from Skye and Ardnamurchan [Scotland] (MacCulloch, 1817*a*)
1 January 1817 TGS(1) 4 Steatitical limestone from Skye (MacCulloch, 1817*a*)
7 January 1817 TGS(1) 4 Specimens from Scotland*
7 March 1817 TGS(1) 4 Specimens from Scotland*
21 March 1817 TGS(1) 4 Specimens from Scotland*
18 April 1817 TGS(1) 4 Slate from Dunkeld, and mica slate from Perthshire
2 May 1817 TGS(1) 4 Specimens from Isle of Man and ‹fragments of bivalves from› Rasay* *(List of rocks, n.d. GSL Mus1/204)*
11 May 1817 TGS(1) 4 Specimens of arenaceo-calcareous stalactite from Delvine, Perthshire
5 December 1817 TGS(1) 5 Primary Limestone from Perthshire
1 May 1818 TGS(1) 5 Rocks from Scotland ‹mainly Perthshire and Glen Tilt›*
28 March 1819 TGS(1) 5 Rocks from Scotland ‹287 specimens, listed in Waste Book 14967–15287›*
19 December 1820 TGS(1) 5 Serpentine and diallage rock from Shetland

* *On the basis of the original labels we believe that some of these MacCulloch rock specimens are now in the Mineralogy Dept., BM(NH). They include eleven specimens from Raasay, twelve from Skye, eight from the Shiant Isles, nine from Arran, two from Morven, three from Glamich, one from Gigha, two from Mare Isle, two from Scalpa, four from Rhum, two from Torsa, one from Luing and six from Skath.*
There are Jurassic fossils at BGS.

McEnery, Rev. John (1796–1841)
12 October 1826 TGS(2) 2 Plaster cast of the tooth of the Ursus cultridens from Kent's Hole [Torquay, Devon]
Pleistocene fossils at BGS.

Mackay, R.
Wenlock fossils from Ledbury, Hereford and Worcester, at BGS

Mackay, R. W.
Gault fossils from Folkestone, Kent, and Tertiary from Barton and Bracklesham, W. Sussex, at BGS

Mackenzie, A. C.
19 February 1864 QJGS 20 Specimens of albertite from Mountgerald, Scotland (Mackenzie, 1863)

Mackeson, Henry Bean (1811–1894)
November 1841 PGS 3 p. 563 Fossils from the Gault of Copt Point, near Folkstone [Kent]
16 February 1844 PGS 4 p. 342 Fossils from the Lower Greensand, Hythe, Kent, and from the Gault at Copt Point, near Folkstone [Kent]
18 February 1848 QJGS 4 Shells, bones and teeth, from alluvial beds and raised beach near Hythe [Kent]
Cretaceous and Pleistocene fossils at BGS.

Mackintosh, Angus Friend (fl.1839–1848) [FGS]
21 February 1840 PGS 3 p. 195 Beekite from Devonshire
6 May 1841 TGS(2) 6 Specimen of Pecten lamellosus from the Portland Oolite. (Also reported in PGS 3 p. 621, 18 February 1842)
Jurassic fossil at BGS.

Mackintosh, C.
1 May 1812 TGS(1) 2 Specimens of the Aluminous strata from Campsie [Scotland] (Mackintosh, 1817). (*Description of the specimens . . . 1812, GSL Mus1/201*)

Mackintosh, Daniel (1815–1891)
Undated donation of drift-boulders (Mackintosh, 1869)*
* *Five rock specimens are still extant in the Department of Mineralogy, BM(NH). Limestone specimens at BGS.*

Maclauchlan, Henry (1791–1881)
6 August 1832 TGS(2) 3 and PGS 1 p. 427 A portion of the fossil tree found at Craigleith quarry [near Edinburgh, Scotland]
15 February 1833 PGS 1 p. 427 Fossils from the Oolite of Buckinghamshire and Oxfordshire; (*Letter, H. McLauchlan to W. Lonsdale, 7 May 1832, GSL Mus1/39)*
31 January 1838 TGS(2) 5 Specimens from the slate of Devonshire (Also reported in PGS 2 p. 608, 16 February 1838. *Letter, McLauchlan to W. Lonsdale, 29 January 1838, GSL Mus2/8)*
21 February 1840 PGS 3 p. 195 Specimens from Abereiddy Bay and from a Peat Bog near Fishguard *(Letter, H. McLauchlan to W. Lonsdale, 12 August 1839, GSL Mus2/60)*
19 February 1841 PGS 3 p. 373 A mass of metamorphic rock from Fishguard [Dyfed] *(Letters, H. McLauchlan to W. Lonsdale, 10 & 18 May 1840, GSL Mus2/61–2)*
10 June 1841 TGS(2) 6 Specimens from Pembrokeshire (Maclauchlan, 1842) (Also reported in PGS 3 p. 621, 18 February 1842. *Letter, H. McLauchlan to W. Lonsdale, 30 April 1841, GSL LR5/303)*
18 February 1848 QJGS 4 Specimens of Spirifer gigantea and other shells in slate, from Tregatta quarries near Tintagel [Cornwall]
Silurian, Devonian and Jurassic fossils at BGS.

Maclauchlan H. and J. R. Wright. See Wright and Maclauchlan

Macmichael, William (1784–1839)
3 November 1809 TGS(1) 1 Specimens from Staffa &c.

Majendie, Ashhurst (1784–1867)
29 June 1815 TGS(1) 3 Recent Sandstone, New Quay, Lower St.Columb, north coast of Cornwall
4 May 1816 TGS(1) 3 Wood tin in the matrix, from Trethurgy Moor, near St Austle, Cornwall

7 June 1816 TGS(1) 3 Specimens from Cornwall
5 June 1818 TGS(1) 5 Vein of granite in slate ‹from St Michaels Mount,› Cornwall
6 June 1819 'MS only' Rocks and minerals from Cornwall*
2 April 1821 TGS(1) 5 Sulphate of Barytes ‹from Reigate [Surrey]› and a fragment of a septarium ‹from Highgate [London]›
12 June 1822 TGS(2) 1 Specimens from a gravel-pit near Castle Hedingham, Essex
6 December 1822 TGS(2) 1 Specimens of Flints with organic remains from Headingham Castle, Essex
20 March 1823 TGS(2) 1 Specimens of flints with organic remains, from a gravel pit near Headingham Castle, Essex
16 January 1824 TGS(2) 2 Fossil palate of a fish from a gravel pit near Hedingham Castle, Essex
10 February 1824 TGS(2) 2 Prehnite with part of the matrix from Bottallack, Cornwall
15 March 1824 TGS(2) 2 Fossils from a gravel pit, Castle Hedingham, Essex
7 December 1825 TGS(2) 2 Various rocks and minerals
20 December 1827 TGS(2) 2 Specimens from Anglesea and the neighbourhood of Snowdon
26 January 1828 TGS(2) 2 Porphyry from Symond's Bath, Exmoor Forest
25 February 1832 TGS(2) 3 An agate from the trap of Edinburgh (Also reported in PGS 1 p. 426, 15 February 1833)
26 March 1832 TGS(2) 3 Fossils from the neighbourhood of Bath [Avon] (Also reported in PGS 1 p. 426, 15 February 1833)
18 December 1833 TGS(2) 4 Specimens from Jersey
16 February 1844 PGS 4 p. 342 Cellular limestone from Sampson's Bay, Ilfracombe [Devon]
21 February 1845 PGS 4 p. 534 Silurian fossils from the Western flank of the Malverns [Hereford and Worcester]
20 February 1852 QJGS 8 Specimens of Pinnae, Panopoea, Pyrula, Venericardiae, Voluta, Pectunculi, &c., from the Bognor Rock
21 February 1862 QJGS 18 Specimen of conglomerate with tin-stone, from Relistian Mine, Cornwall*

* *Extant is a specimen of epidote (BM1911,601) from Botallock Mine, St Just, and one of apatite (BM1911,601) Huel Bay, Zennor, St Ives, Cornwall corresponding to the MS donation to the Geological Society Museum of 6 June 1819. These are now in the Department of Mineralogy, BM(NH). Also surviving is an unregistered tinstone-conglomerate from Relistian Mine (Carne, 1807).*
Silurian, Carboniferous, Tertiary and Quaternary fossils at BGS.

Malcolmson, John Grant (1802–1844) and Rev. M.R. Coulston. See Coulston and Malcolmson

Malcolmson, J. G., Rev. G. Gordon, and William Staples
5 June 1839 TGS(2) 5 Fishes from the Old Red Sandstone of the counties of Murray, Nairn, Inverness, and Banff [Scotland] (Malcomson, 1838)
Old Red Sandstone fossils at BGS.

Mandell, Rev. William (c.1779–1843)
19 July 1817 TGS(1) 5 Molybdena and manganese

Mantell, Gideon Algernon (1790–1852)
17 July 1817 'MS only' Alcyonium conoides from the Chalk near Lewes
17 July 1817 TGS(1) 5 Specimens and fossils from the Chalk ‹95 specimens, Waste Book 12315–12410›

17 November 1817 'MS only' Iron pyrites, Chalk near Lewes
20 February 1818 TGS(1) 5 Scales of fish in chalk, and a polished slab of Petworth Marble
19 June 1818 TGS(1) 5 Fossils from the Chalk and Blue Marl ‹from Folkestone, Kent›
19 June 1818 TGS(1) 5 Flints from Upper Chalk, Lewes
8 November 1818 'MS only' Fossils from the Chalk and Blue Marl of Lewes
12 September 1819 TGS(1) 5 Fossils from the Chalk and ferruginous sand in Sussex (Mantell, 1826) *(?List of fossils, n.d., GSL Mus1/16)*
29 October 1819 TGS(1) 5 Specimens of the tortoise encrinite [Marsupites]
14 March 1822 TGS(2) 1 Fossil wood from the Weald of Sussex ‹Waste Book has 'fossil bone?'›
13 June 1822 TGS(2) 1 Specimens from the Weald of Sussex ‹including bones, teeth and plant material from Tilgate Forest, listed in Waste Book, 18546–18598› (Mantell 1824b)
17 January 1823 TGS(2) 1 Fossils from the Blue Marle of Bletchingley [Surrey] (Mantell, 1824*a*)
26 June 1823 TGS(2) 1 Astacus from the Lower Chalk, Sussex
1 May 1825 TGS(2) 2 Fossils from the Chalk at Lewes
2 July 1825 TGS(2) 2 Plaster casts of fossil bones from Tilgate Forest [W.Sussex]* (Mantell, 1835 and 1837)
15 December 1826 TGS(2) 2 Specimens from Sussex (Mantell, 1926)
10 April 1832 TGS(2) 3 Fossils from the Weald Clay and Hastings Sand (Also reported in PGS 1 p. 427, 15 February 1833)
14 August 1834 TGS(2) 4 Cast of a claw-bone of a Crocodile, and of an Iguanodon from Tilgate Forest [W.Sussex]* (Also reported in PGS 2 p. 130, 20 February 1835)
22 September 1835 TGS(2) 5 and PGS 2 p. 342 Specimens from the newer Pliocene Beds in the neighbourhood of Brighton
26 September 1835 TGS(2) 5 and PGS 2 p. 342 Specimens of fishes from the Chalk
1 June 1838 TGS(2) 5 and PGS 3 p. 46 Fossils from the Lower Greensand
17 November 1838 TGS(2) 5 and PGS 3 p. 46 Cast of bones of reptiles discovered by Dr Mantell in Tilgate Forest* ‹formerly in the Mantellian Museum, and now in the British Museum› *(Letter, G.A. Mantell to W. Lonsdale, 15 November 1838, GSL Mus2/84.*
22 May 1839 TGS(2) 5 and PGS 3 p. 195 Fossils from Cornwall
20 February 1846 QJGS 2 Specimens of the Unio valdensis from the Wealden of the Isle of Wight (Mantell, 1846)

* *Ten former Geological Society rock specimens from the Tilgate Forest – Cuckfield area of Sussex survive. One of these appears to contain fossil plant material. They perhaps are connected with papers by Mantell (1824b, 1826 and 1835). The specimens are now in the Department of Mineralogy, British Museum (Natural History).*
There is a large collection of fossils at BGS.

Mantell, Reginald Neville (1827–1857)
18 February 1848 QJGS 4 Several large ammonites and other fossils from Trowbridge [Wiltshire] *(Letter, 17 March 1847, GSL LR10/67)* (Mantell, 1850)

Marryat, Captain Frederick (1792–1848)
3 May 1819 TGS(1) 5 Recent shells
26 February 1822 TGS(2) 1 Fossil wood bored by Teredo from the neighbourhood of Harwich [Essex]

Marryat, Joseph junr.
16 April 1819 TGS(1) 5 Recent freshwater shells

Marshall, William [of Tadcaster]
20 May 1825 TGS(2) 2 Green carbonate of copper, occurring in the Magnesian Limestone, at Newton Kime, near Tadcaster, Yorkshire (Marshall, 1826)

Martin, C. W.
30 November 1841 TGS(2) 6 A Trochus, from the Lower Green Sand, near Maidstone [Kent] (Also reported in PGS 3 p. 621, 18 February 1842)
Cretaceous fossil at BGS.

Martin, Peter John (1786–1860)*
15 June 1827 TGS(2) 2 Fossils from the sandstone of Parham Park and Pulborough Mount [W.Sussex] (*In* Fitton, 1836. Also reported PGS 1 p. 47 on 15 February 1828 *List of fossils, n.d., GSL Mus1/143)* (Martin, 1834)
16 February 1844 PGS 4 p. 342 Ichthyolites and other fossils from the Lower Greensand, Pulborough, Sussex
* *A single former Geological Society Museum specimen, attributable to a 'Mr Martin' and from Ockley, Surrey, is extant in the Department of Mineralogy, British Museum (Natural History).*
Cretaceous fossils at BGS.

Mawe, John (1764–1829)
1 September 1816 TGS(1) 4 Simple minerals ‹from Derbyshire›
7 January 1817 TGS(1) 4 Crystallised tourmaline with appatite [sic], from Devonshire *(Letter, 15 January [1809], GSL Mus1/40)*
23 March 1819 TGS(1) 5 Ancient tool called a Noger, formerly used in working the mines of Derbyshire *(Letter, J. Mawe to T. Webster, 22 March 1819, GSL LDGSL28)*

Meade, Thomas (d.1845)
4 November 1808 TGS(1) 1 Specimens from Wiltshire, Somersetshire &c.
3 November 1809 TGS(1) 1 Fossil remains from Wiltshire and Somersetshire
16 November 1810 TGS(1) 1 Specimens from Wiltshire and other parts of England
7 December 1810 TGS(1) 1 Specimens from Somersetshire, Wiltshire &c.
1 February 1811 TGS(1) 1 Specimens from Somersetshire
19 February 1813 TGS(1) 2 Specimens from Cheshire and Somersetshire
30 December 1814 TGS(1) 3 Fossils from the Greensand near Warminster [Wiltshire] and other fossil organic remains
23 January 1815 TGS(1) 3 Fossil Fistulana from the Coral Rag, Calne [Wiltshire]
20 June 1817 TGS(1) 4 Specimens from Devonshire ‹minerals from Torquay and Bovey Tracey›
3 August 1820 'MS only' Teeth of a fish, Oolite, Alford
3 August 1820 TGS(1) 5 Vegetable impressions from the coal near Chatley, Somerset
11 March 1829 TGS(2) 2 Wavellite from Cork [Ireland] (Also reported in PGS 1 p. 177, 19 February 1830)*
* *The specimen is now in the Department of Mineralogy, BM(NH) numbered BM1911,607. There are Carboniferous, Jurassic and Cretaceous fossils at BGS.*

Meeson, Richard (1814–1871)
17 February 1865 QJGS 21 Casts of Ostrea, etc., from the Upper Chalk of Grays, Essex

Mello, Rev. John Magens (1836–1914)
22 June 1869 'MS only', rock specimens from Tideswell Dale [Derbyshire] (Mello, 1870)
June 1875 'MS only', bones of elk, reindeer, bison, rhinoceros &c. from the bone cave in Creswell Crags, Derbyshire (Mello, 1875)

15 February 1884 QJGS 40 Specimen of 'Iron-amianthus' (Mello, 1884)
Pleistocene fossils at BGS.

Menteath, James Stuart (1792/3–1870)
13 May 1828 TGS(2) 2 Fossils from the Mountain Limestone at Closeburn, Dumfriesshire (Also reported PGS 1 p. 106, 20 February 1829. *Letter, J. S. Menteath to R. I. Murchison, 2 April 1828, GSL Mus2/3)*
Carboniferous fossils at BGS.

Michel, John J. [Lieut. R.E.]
24 July 1819 TGS(1) 5 Cast of an ammonite in flint ‹from near Rochester [Kent]›

Michell, J. (through D. Gilbert)
19 February 1830 PGS 1 p. 177 Specimens of artifical oxide of tin, of Tungstate of Lime and a mineral from Cornwall

Middleton, John O.
21 February 1862 QJGS 18 Large mass of Anthracosia, from coal-bed near Oldham [Greater Manchester]; Suite of fossils from Coniston Limestone and shale

Miller, John Samuel (1779/80–1830)
5 June 1818 TGS(1) 5 Head of an encrinite from near Bristol [Avon]
29 August 1829 TGS(2) 3 Two specimens of sulphate of strontian on Lias from Cotham, near Bristol (Also reported in PGS 1 p. 178, 19 February 1830)
Carboniferous fossils at BGS.

Miller, Professor William Hallowes (1801–1880)
25 April 1834 TGS(2) 4 Fossils from the Grauwacke of the neighbourhood of Llandovery [Dyfed] (Also reported PGS 2, p. 130, 20 February 1835)

Milnes, William junr. [of Ashover, Derbyshire]
15 May 1812 TGS(1) 2 Specimens from Derbyshire *(Letter, W. Milnes to G. B. Greenough, 18 March 1812, GSL Mus1/127; List of specimens, March 1812, GSL Mus1/154; Notes on specimens by G.B. Greenough, GSL LDGSL27/13)*

Mitchell, Captain Samuel
19 February 1864 QJGS 20 Specimen of pearl-spar from new Treleigh Mine, Cornwall.

Moggridge, Matthew (1803/4–1882)
17 February 1860 QJGS 16 Deposit in boiler-pipes at Merthyr [Dyfed]
Recent fossils at BGS.

Monck, Sir Charles Miles Lambert Middleton (1779–1867)
1 May 1825 TGS(2) 2 Series of rocks from the lead mining country of Cross Fell in Cumberland and Northumberland, collected by Westgarth Forster Esq.

Montgomery, Colonel
Carboniferous fossils from County Fermanagh at BGS.

Moore, Charles (1815–1881)
21 February 1842 TGS(2) 6 Specimens of ammonites ‹Ammonites falcifer, hildenensis and annulatus from the Alum Shale› and Pecten equivalvis, ‹from the Marlstone›, Ilminster [Somerset] (Also reported PGS 4 p. 49, 17 February 1843)
13 February 1854 'MS only', suite of minute Palliobranchiate shells from the Inferior Oolite of Dundry [Avon]
Jurassic fossils at BGS.

Moore, Edward (1794–1858)
January 1842 TGS(2) 6 Specimens from the drift near the raised beach, Plymouth [Devon] (Also reported in PGS 3 p. 622, 18 February 1842) (Moore, 1842)

Moore, John Carrick (1804–1898)
15 February 1850 QJGS 6 Fossils from the Silurian rocks of Ayrshire and Wigtonshire (Moore, 1849)
Ordovician and Carboniferous fossils at BGS.

Morgan, James
19 June 1818 TGS(1) 5 Fragment of bone of the elephant found immediately above the London Clay in digging the tunnel under Islington [London]
Pleistocene fossils at BGS.

Morris, Miss and Mrs Taddy
21 December 1832 TGS(2) 3 Quartz crystals from the Coal Measures, Monmouthshire (Also reported in PGS 1 p. 427, 15 February 1833)

Morris, John (1810–1886)
1 January 1837 TGS(2) 5 Specimens from the freshwater deposit at Grays [Essex]; specimens from the plastic clay at Woolwich and Upnor [Kent]; and a specimen of fossil wood from Bayswater [London]
(Also reported in PGS 2 p. 464, 17 February 1837) (Morris, 1837)
21 October 1837 TGS(2) 5 Specimens from near the Trap Dyke, Penrhyn Slate-Quarries, Bangor [Gwynedd] (Also reported in PGS 2 p. 608, 16 February 1838)
November 1841 PGS 3 p. 563 Fossils from Grays in Essex
There is a large collection of fossils at BGS.

Morris, J. and J. Prestwich. See Prestwich & Morris

Moysey, Frederick (d.*c*.1827)
1 December 1819 TGS(1) 5 Specimens from Cornwall

Mudge, Captain Richard Zachariah (1790–1854)
25 August 1835 TGS(2) 5 Fossils from the inferior oolite of Leckhampton Hill, near Cheltenham [Gloucestershire] (Also reported in PGS 2 p. 341, 19 February 1836. *Letter, 22 August 1835, GSL Mus2/34)*
3 February 1836 TGS(2) 5 Fossils from the neighbourhood of Cheltenham [Gloucestershire]
Devonian and Jurassic fossils at BGS.

Munn, Elston and Clark, Messrs
6 August 1832 TGS(2) 3 Tusk of an elephant found at Erith in Kent (Also reported in PGS 1 p. 427, 15 February 1833)

Murchison, Sir Roderick Impey (1797–1871)
7 December 1825 TGS(2) Specimens of the Greensand and of the Weald in Sussex and Hants to illustrate a memoir by R. I. Murchison* (Murchison, 1826)
21 April 1826 'MS only', a cast of the superior portion of a saurian femur found at Loxwood, Sussex
2 March 1827 TGS(2) 2 and PGS 1 p. 15 Rocks and fossil shells from N.E. and N.W. coasts of Scotland, in illustration of a memoir upon the Brora Coal-field by R. I. Murchison* (Murchison, 1827); rocks and fossil shells from the Scarborough coast [N.Yorkshire]; fossil fish from Banniskirk, Caithness
15 November 1827 TGS(2) 2 Specimens of the upper bed of the Brora coal, composed entirely of the plant Oncylogonatum carbonarium (Murchison, 1827)

4 January 1828 TGS(2) 2 Specimen of the rock from the surface of Brambury Hill, Sutherland, showing marks of denudation
15 February 1828 PGS 1 p. 47 Additional fossils of the Oolitic Series in Scotland, and rocks associated with them; to illustrate a paper read before the Society (Murchison, 1828, Sedgwick & Murchison, 1829*a*)
5 February 1830 TGS(2) 3 Fossils from the Upper Greensand
19 February 1830 PGS 1 p. 178 A collection of fossil fishes from Banffshire
31 December 1830 TGS(2) 3 A Dapedium and other fossils from Lyme Regis [Dorset] (Also reported in PGS 1 p. 261, 18 February 1831)
25 January 1832 TGS(2) 3 Specimens from Stonesfield [Oxfordshire], and from the Lias and oolites of the neighbourhood of Cheltenham
[Gloucestershire] (Murchison, 1832*a*)
17 February 1832 PGS 1 p. 348 A collection formed during a geological tour through a very considerable part of England
16 March 1832 TGS(2) 3 A specimen of murchisonite* (Reported again with the donation below)
3 May 1832 TGS(2) 3 Specimens from the neighbourhood of Cheltenham [Gloucestershire] (Murchison, 1832a, Murchison *et al.* 1844). (Also reported in PGS 1 p. 426, 15 February 1833)
21 May 1832 TGS(2) 3 Specimens from the fossiliferous grauwacke on the borders of Wales and England (Murchison, 1833)* (Also reported in PGS 1 p. 426, 15 February 1833)
11 March 1833. TGS(2) 3 Additional specimens illustrative of Mr Murchison's memoirs on the grauwacke system of the border counties of England and Wales* (Murchison, 1833)
8 January 1834 TGS(2) 4 and PGS 2 p. 28 Specimens from the Old Red Sandstone of South Wales (Murchison, 1834*a*)
22 January 1834 TGS(2) 4 and PGS 2 p. 28 Suite of rocks and fossils to illustrate Mr Murchison's paper on Herefordshire, Shropshire and parts of Wales* (Murchison, 1834*a*)
25 March 1834 TGS(2) 4 and PGS 2 p. 130 Specimens of the ‹tufa from› Southstone Roche near Tenbury, Worcestershire
9 April 1834 TGS(2) 4 and PGS 2 p. 130 Specimens of Mountain Limestone and Greensand of England
21 May 1834 TGS(2) 4 and PGS 2 p. 130 Specimens of Greenstone, Porphyry, and Sienite from the Border counties of England and Wales (Murchison, 1834*b*)
21 January 1835 TGS(2) 4 Specimens of Lias from Cloverly and of the New Red Sandstone Series of Shropshire (Murchison, 1834*c*)*
20 February 1835 PGS 2 p. 130 A series of specimens of the Transition Formations
17 November 1838 TGS(2) 5 New Red Sandstone from Birkswell, Warwickshire (Murchison & Strickland, 1840. Also reported below.)
15 February 1839 PGS 3 p. 46 Mass of New Red Sandstone, with impressions of Chirotherium footsteps from Birksbeck, Warwickshire (Murchison & Strickland, 1840)
19 February 1841 PGS 3 p. 373 Additional specimens from the Silurian System* (Murchison, 1839)
18 February 1859 QJGS 15 Suite of Sutherland and Caithness specimens*
17 February 1860 QJGS 16 Fossils from Brora, &c.
8 November 1865 'MS only', a miscellaneous collection of Recent and fossil remains

* *The murchisonite mineral donation of March 1832 corresponds to a one-time Geological Society Museum specimen of orthoclase var. murchisonite (now BM1911,628) from Dawlish, Devon. Numerous rock specimens also survive from the collections indicated. There is a large collection of fossils at BGS.*

Murchison, R. I. & W. Buckland. See Buckland and Murchison

Murchison, R. I., Earl of Enniskillen, H. Warburton, Sir P. Egerton, C. Stokes & W. J. Broderip. See Warburton

Murchison, R. I. and Professor A. Sedgwick. See Sedgwick and Murchison

Murray, Alexander (1810–1884)
1 November 1827 TGS(2) 2 Fossil fish from Troup Head, Banff [Scotland]

Mushen, James [of Birmingham]
15 February 1861 QJGS 17 A series of plaster-casts of Cystideae
Plaster casts at BGS.

Neale, Mr A. [of Portland]
18 February 1853 QJGS 9 Fossil bones and shells from Portland (Neale, 1852)
Jurassic and Pleistocene fossils at BGS.

Necker de Saussure, Louis Albert (1786–1861)
3 November 1809 TGS(1) 1 Specimens from the counties of Devon and Cornwall* (See Berger (1811a) and *List of specimens, n.d., LDGSL27/8: Explanatory catalogue, BMNHP P Mss Geo 'Miscellaneous')*
* *Rock specimens exist in the Mineralogy Department, BM(NH), (see under Berger), also a Necker specimens of 'Sienite' is extant. From the (original?) label this has connections with Brongiart and is dated 1831.*

Neve Foster, see Foster, C. Le N.

Nicholl, Rt. Hon. Sir John (?1759–1838)
4 December 1818 'MS only', Impressions of vegetables in coal shale from the south Wales coalfield in the neighbourhood of Merthyr Tydfil [Mid Glamorgan]
9 November 1820 TGS(1) 5 Peacock Coal, from the River Bury, Glamorganshire

Nichols, Mr
13 October 1846 'MS only', several fossils shells from the oolitic &c. near Cirencester [Gloucestershire]

Nicholson, George Stewart [or Stuart] (d.1857)
13 May 1833 TGS(2) 3 Fish's head from the London Clay (Also reported in PGS 2 p. 28, 21 February 1834)
14 October 1835 TGS(2) 5 A specimen from the Plastic Clay near Chatham [Kent] (Also reported with fossils from the Chalk in PGS 2 p. 342, 19 February 1836)
Cretaceous and Tertiary fossils at BGS.

Nicol, Professor James (1810–1879)
15 February 1850 QJGS 6 Fossils from the Silurian rocks of Peeblesshire (Nicol, 1850)
Silurian and Carboniferous fossils at BGS.

Nisbett, A.
Reptile tooth from Gault at BGS.

Northampton, Spencer Joshua Alwyne Compton, 2nd Marquis of (1790– 1851), Lord Compton until 1828.
1 May 1815 TGS(1) 3 Alcyonite in calcedony
Before 1816 'MS only' Fossils from the Greensand of Earl Stoke, Wiltshire
14 December 1818 TGS(1) 5 Fossils from Chobham [Surrey] ‹attributed to Greenough in ms record›
29 October 1819 TGS(1) 5 Specimens from Ireland ‹attributed to Greenough in ms record›

10 December 1819 TGS(1) 5 Specimens from the island of Mull (Earl Compton, 1821).
5 May 1820 TGS(1) 5 A joint of columnar basalt from Carsaig in Mull (Earl Compton, 1821)
19 December 1820 TGS(1) 5 Specimens from the neighbourhood of Glasgow*
2 March 1821 TGS(1)5 Siliceous casts of perforations in Belemnites from chalk quarries of Larne, Ireland
2 May 1821 TGS(1) 5 Fossils from the chalk in the parish of Shiere
30 April 1833 TGS(2) 3 Beehite and corals from Devonshire (Also reported in PGS 2 p. 28, 21 February 1834)
10 June 1835 TGS(2) 4 Spirolinites in chalk flints from Stoke, near Chichester [W.Sussex] (Also reported in PGS 2 p. 341, 19 February 1836) (Northampton, 1838)
10 March 1836 TGS(2) 5 Head of Ichthyosaurus communis (Also reported in PGS 2 p. 463, 17 February 1837 with the donation below)
22 May 1836 TGS(2) 5 Scaphites Hillsii, from the Lower Greensand, Maidstone [Kent] (Also reported in PGS 2 p. 463, 17 February 1837)
27 March 1839 TGS(2) 5 A polished specimen of Spongus labyrinthus in flint, from Sussex (Also reported in PGS 3 p. 194, 21 February 1840)
20 February 1846 QJGS 2 Polished sections of corals from South Devon

* *A specimen of harmotome (now BM1911,603) from Long Craig, Kilpatrick Hill, Dumbarton, perhaps corresponds to the donation of December 1820. There is also a surviving Geological Society rock specimen, attributable to Lord Compton on the basis of a label, of a yellow sandstone from 'Stonefield Oxon'.*
There are Devonian, Jurassic and Cretaceous fossils at BGS.

Northampton, Marquis of, H. G. Bennet & G. B. Greenough. See Bennet

Norris, John
1 January 1817 TGS(1) 4 Specimens of Curl stone from Monmouthshire
20 February 1818 TGS(1) 5 Specimens ‹containing Cyclades and other shells› from Cove, near Blackwater, Hants
Jurassic fossil at BGS.

Norman, Mark W.
Cretaceous fossils from the Isle of Wight at BGS.

Nottes, C.
Barton Clay molluscs from Hordwell, Hampshire, at BGS

Ormerod, George Wareing (1810–1891)
17 February 1843 PGS 4 p. 49 Cast of Asaphus buchii from Snowdon
18 February 1859 QJGS 15 Granite-veins from the carbonaceous rocks east of Dartmoor (Ormerod, 1859)
19 February 1875 QJGS 31 Rolled granitoid mass from the Trias near Teignmouth, specimens of murchisonite from Lympstone and Kenton, [Devon] (Ormerod, 1875)
Cambrian fossils at BGS.

Overbury, James
Corallian ammonites from Headington, Oxfordshire, and Seend, Wiltshire, at BGS
Jurassic fossils at BGS.

Owen, J. W. B. [M.A., F.A.S.L.]
16 February 1866 QJGS 22 Twelve specimens of lead and copper from various localities

Oxmanton, Viscount, see Rosse, Earl of

Page, Frederick (d.1877)
4 May 1832 TGS(2) 3 Specimens of sulphate of strontia* and haematite from the neighbourhood of Bristol (Also reported in PGS 1 p. 427, 15 February 1833. *Letter, W. Eastwick, 1 May 1832, GSL Mus1/205)*
* *According to the BM(NH) records there are extant one-time Geological Society Museum specimens of celestine (BM1911,623–7), probably corresponding to this donation. They were given to the Geological Society by the 'Avon and Gloucester Railway, Bristol'.*
Jurassic fossils at BGS.

Palmer, Henry R. [Engineer to the London Docks]
5 November 1828 TGS(2) 2 Organic remains found in digging the New Basin of the London Docks (Also reported in PGS 1 p. 106, 20 February 1829)
7 September 1830 TGS(2) 3 Two Deer's horns from the neighbourhood of the London Docks (Also reported in PGS 1 p. 261, 18 February 1831.
Letter, H. R. Palmer to A. Aikin, 26 August 1830, GSL Mus1/47)

Parish, Sir Woodbine (1796–1882)
30 September 1833 TGS(2) 4 Fossils from the cliffs at Hastings and St. Leonards and a tree from the submarine forest near St. Leonards [E.Sussex] (Also reported in PGS 2 p. 29, 21 February 1834. *Letter, W. Parish to G. B. Greenough, 4 November 1833, GSL Mus1/79)*
13 November 1834 TGS(2) 4 Fossils from Bognor and the Chalk near Felpham [W.Sussex] (Parish, 1837) (Also reported in PGS 2 p. 130, 20 February 1835. *Letter, 4 November 1834, GSL LR1/92)*
May 1835 TGS(2) 4 A stalactite from Ingleborough Cave, Yorkshire
24 November 1835 TGS(2) 5 Specimens from the Chalk of Beachy Head, and from the Hastings Beach [E.Sussex] (Also reported in PGS 2 p. 342, 19 February 1836)
1 May 1836 TGS(2) 5 Specimen of Anadonta parishii
Cretaceous and Tertiary fossils at BGS.

Parker, Joseph, junr. (d.1880)
19 February 1841 PGS 3 p. 373 Concretions from the New Red Sandstone from Hearddist
17 February 1843 PGS 4 p. 50 Schist with tortuous impression from Killarney and Calcareous Earth from Lough Derg [Ireland]

Parkes, L.
Silurian fossils from Abberley Hills, Herefordshire and Worcestershire at BGS

Parkes, Samuel (1761–1825)
1 March 1819 TGS(1) 5 Dudley Limestone with entomolites [trilobites], and black oxide of manganese ‹from a newly discovered mine in Warwickshire› (Parkes, 1822. *Letter, S. Parkes to T. Webster, 19 February 1819, GSL Mus1/49)*
21 June 1821 TGS(2) 1 Black Oxid of manganese ‹from Harts Hill near Atherstone, Warwickshire›*
* *This is probably the pyrolusite specimen from Harts Hill, Atherstone, Warwickshire, now BM1911,564. Also extant is a specimen of calcite, now BM1911,565, also from Harts Hill, Warwickshire.*
Silurian fossils at BGS.

Parkinson, James (1755–1824)
19 February 1813 TGS(1) 2 Organic remains illustrative of Mr. Parkinson's paper on the strata near London (Parkinson, 1811)
19 November 1813 TGS(1) 2 Nummulites, from Selsea [W.Sussex]

1 April 1814 TGS(1) 2 Fossil shells arranged systematically
8 February 1825 Fossil bones of the crocodile from the London Clay

Pattison, Samuel Rowles (1809–1901)
Devonian fossils from Tintagel, Cornwall, at BGS.

Payton, Joseph (fl.1808–1842)
20 February 1825 TGS(2) 2 Fossils from the Dudley Limestone and coal shale
Silurian and Carboniferous fossils at BGS.

Pearce, Joseph Chaning (1811–1847)
* *A specimen of limestone from Somerset survives in the Department of Mineralogy, BM(NH).*
There are Devonian and Jurassic fossils are at BGS

Pengelly, William (1812–1894)
20 February 1863 QJGS 19 Specimens of fossil plants from Hempstead, Isle of Wight (Pengelly, 1862)
Tertiary fossils at BGS.

Penney, W.
Purbeck fossils from Durdlestone Bay are at BGS.

Pepys, William Hazledine (1775–1856)
1 June 1810 TGS(1) 1 Large slab of marble from Devonshire ‹illustrating the disturbance occurring in mineral veins›

Peter, Rev. J.
22 March 1876 'MS only', Cruziana semiplicata from Nant-Francon, Carnarvonshire
Cambrian fossils at BGS.

Pettit, C. [of Leighton Buzzard]
19 February 1858 QJGS 14 Specimens of Clatharia from the Iron sand of Leighton [Buzzard, Bedfordshire]
Cretaceous fossils at BGS.

Peyton, John Earl Hunter (d.1916)
16 February 1883 QJGS 39 A specimen of Oleandridium beyrichii, Schenk, from the Wadhurst Clay of the cliffs east of Hastings [E.Sussex]

Phillip, P. F.
Devonian fossils from near Torquay, Devon, are at BGS.

Phillips, John Arthur (1822–1887)
15 February 1878 QJGS 34 Thirty-two rock-sections and thirty-nine rock-specimens to illustrate his paper 'On the so-called "greenstones" of central and eastern Cornwall' (Phillips, 1878) (*'List of sections of Cornish rocks' BMNHP PMss Geo*)

Phillips, Richard (?1778–1851)
3 November 1809 TGS(1) 1 Specimens from Scotland, and from the counties of Cornwall and Kent

Phillips, William (1773–1828)*
5 January 1810 TGS(1) 1 Granite, gossan &c., from Cornwall, in illustration of Mr Phillips account of the arseniated iron, and red oxyd of copper (Phillips, 1811, 1814)
5 November 1817 TGS(1) 5 Specimens from the Greensand*
16 January 1818 TGS(1) 5 Fossils of the Chalk nr. Dover and Folkestone [Kent] ‹listed in detail in the Waste Book, 13011–13104›
* *Five rock specimens from the Dover area survive in the Department of Mineralogy,*

BM(NH). Additionally there is a specimen of cassiterite (BM1911,557) from Relistan Mine, Cornwall, attributable to this collector.
Cretaceous fossils exist at BGS.

Plane, J.
Fossils from the Lower Greensand of Kent at BGS

Pocock, Robert [?1760–1830, of Gravesend]
17 July 1815 TGS(1) 3 Fossil Trochus from Highgate [London]

Poole, G. S.
19 February 1864 QJGS 20 Specimens of Bog-oak, peat, &c., from Somerset
Pleistocene fossils at BGS.

Pope, Dr Charles (1800/1–1878)
16 February 1844 PGS 4 p. 343 Sigillaria from the Coal Measures, Clutton in Templecloud, Somerset

Portlock, Captain Joseph Ellison (1794–1864)
4 May 1842 TGS(2) 6 Graptolites from Ireland ‹County Fermanagh› (Also reported in PGS 4 p. 49, 17 February 1843)
Silurian and Carboniferous fossils at BGS.

Potts, Dr
6 January 1836 TGS(2) 5 Fossils from the neighbourhood of Bodmin [Cornwall] (Also reported in PGS 2, p. 342, 19 February 1836, as being from the 'Grauwacke Slate')

Potts, Miss Eliza (1809–1873)
16 February 1844 PGS 4 p. 342 Slab of sandstone with track of a fish (Ichthyopatolite, Buckland) from Cheshire

Powell, Baden [of Langton, Kent]
15 April 1816 TGS(1) 3 Fossil wood in calcareous rock, from Stretton on Dunsmore, Warwick
1 June 1834 TGS(2) 4 and PGS 2 p. 130 Specimens from the Hastings Sand

Powis, Edward Clive, First Earl of (1754–1839)*
* *Two rock specimens, presumably connected with an unrecorded donation from this collector, are extant in the Department of Mineralogy, BM(NH). The original labels indicate the locality is noted in Murchison (1839).*
There are Silurian fossils at BGS.

Pratt, Samuel Pearce (1789–1863)
3 November 1830 TGS(2) 3 Fossils from the Lias, Inferior Oolite, Fuller's Earth, and Great Oolite, in the neighbourhood of Bath [Avon]
10 November 1830 TGS(2) 3 and PGS 1 p. 261 Remains of the Palaeotherium, Anoplotherium, a new species of deer and of a turtle, from Binstead, near Ryde [Isle of Wight] (Pratt, 1831)
28 November 1831 TGS(2) 3 and PGS 1 p. 352 A collection of fossils from Lackington Hill [Leckhampton Hill] near Cheltenham [Gloucestershire]
17 February 1832 PGS 1 p. 352 Additional specimens from the Isle of Wight
April 1841 TGS(2) 6 and PGS 3 p. 620 Fossils from the Oxford Clay
6 May 1841 TGS(2) 6 and PGS 3 p. 620 Remains of Crustacea from the Upper Greensand, Chard [Somerset]
July 1841 TGS(2) 6 and PGS 3 p. 620 Fossils from the Oxford Clay of Wiltshire
18 February 1842 PGS 3 p. 620 Fossils from the Forest Marble and Fuller's Earth near Bath (listed in PGS 3 p. 563)

16 February 1844 PGS 4 p. 342 Fossils from the Kimmeridge Clay and Calcareous Grit, Shrivenham [Oxfordshire] and a starfish (Amphiura pratti) from the Oxford Clay
6 March 1844 'MS only', Mantellia from Swindon [Wiltshire]
Jurassic, Cretaceous and Tertiary fossils are at BGS.

Preston, Cooper
15 May 1818 TGS(1) 5 Agates found in alluvial soil, North Allerton, on the coast of Yorkshire
3 February 1826 TGS(2) 2 Fossils from the Mountain Limestone
19 May 1826 TGS(2) 2 Fossil crustacea, Speeton Cliff, Yorkshire; fossils from the shale of the Mountain Limestone at Rylstone, Yorkshire; Productus from the Magnesian Limestone near Ripon, Yorkshire

Prestwich, Joseph (1812–1896)
5 September 1835 TGS(2) 5 Fossils from the Chalk at Gravesend [Kent] (Also reported in PGS 2 p. 341, 19 February 1836)
13 April 1836 TGS(2) 5 Specimens from the Coal Measures and the Silurian System of Coalbrook Dale [Shropshire] (Prestwich, 1840. Also reported in PGS 2 p. 463, 17 February 1837)
April 1841 TGS(2) 6 Fossils from the Mountain Limestone of Kendal [Cumbria] (Also reported in PGS 3 p. 620, 18 February 1842)
Carboniferous, Cretaceous and Tertiary fossils at BGS.

Prestwich, J., and J. Morris.
19 February 1847 QJGS 3 Specimens of Hastings sand from near Tunbridge [Wells, Kent] (Prestwich & Morris, 1846)

Prestwich, J., and F. J. Smith
21 February 1862 QJGS 18 Boulders from the gravel of Kelsey Hill and the boulder-clay of Paul Cliff, near Hull [Humberside] (Prestwich, 1861)*
* *Four specimens corresponding to this donation are extant in the Department of Mineralogy, BM(NH).*

Price, Frederick George Hilton (1842–1909)
Gault from the Lower Greensand of Kent at BGS (Price, 1874)

Price, H. H.
3 March 1830 TGS(2) 3 Portions of four basaltic columns from the Giant's Causeway [Antrim] (Also reported in PGS 1 p. 260, 18 February 1831)

Price, Miss
Silurian gastropod at BGS

Pring, John Daniel (1821/1–1893)
17 February 1860 QJGS 15 Suite of Devonian fossils from Somerset
Devonian fossils at BGS.

Proctor, Henry (*c.*1790–1869)
1 February 1833 TGS(2) 3 Specimens of Ludlow rock (Also reported in PGS 1 p. 427, 15 February 1833) (*Letter, T. T. Lewis to R. I. Murchison, 16 Nov 1832, GSL ML7/4*)
Silurian fossils at BGS.

Purdue, John, junr.
3 November 1841 TGS(2) 6 Fossils from the Upper Carboniferous Limestone Shales, near Glasgow (Also reported in PGS 3 p. 621, 18 February 1842, and listed at PGS 3 p. 561)
Carboniferous fossils at BGS.

Pye Smith, Rev. John See Smith, Rev. John Pye

Randolph, Rev. John Honywood (1790/1–1868)
30 January 1828 TGS(2) 2 Specimens from the Lower Greensand near Seven Oaks, Kent
1 May 1828 TGS(2) 2 Specimens from the neighbourhood of Brentford [London]
18 May 1828 TGS(2) 2 and PGS 1 p. 106 A collection of fossil bones, from the Diluvium near Brentford [London]
16 June 1829 TGS(2) 3 Specimens from a well sunk in the London and plastic clays near Westwood, Northolt (Also reported in PGS 1 p. 177)

Rankin, Dr Daniel Reid (1805–1882)
Carboniferous Limestone fossils from Carluke, Lancashire, at BGS

Rashleigh, William (1777–1855)
3 November 1809 TGS(1) 1 Specimens from the stream works of Pentewan &c., Cornwall
18 June 1813 TGS(1) 2 Specimens from Huel Maudlin Mine, Cornwall

Reade, Rev. Joseph Bancroft (1801–1870)
1 June 1838 TGS(2) 5 Specimens of fish-scales in flint (Also reported in PGS 3 p. 45, 15 February 1839)
15 April 1839 TGS(2) 5 Impression in tin-foil of Nereites cambrensis
Ordovician fossils at BGS.

Readwin, F. Allison
Pleistocene Red Crag fossils at BGS.

Rees, Mr
25 April 1834 TGS(2) 4 Specimens of ‹grauwacke containing casts of› Pentamerus oblongus (Also reported in PGS 2 p. 130, 20 February 1835)

Reeve, Dr Henry (1780–1814)
6 November 1812 TGS(1) 2 Flint from Norfolk

Renevier, Eugene (1831–1906)
Lower Chalk fossils from Ventnor, Isle of Wight, at BGS

Rennie, George (1791–1866)
14 December 1836 TGS(2) 5 and PGS 2 p. 464 Specimens of granite from Penrhyn, Cornwall; Ammonites in flint from Box Hill near Dorking [Surrey] (*Letter, G. Rennie to W. Lonsdale, 14 December 1836, GSL Mus2/47)*
20 February 1846 QJGS 2 London Clay from the bed of the Thames opposite Limehouse [London] (Rennie, 1846)
Tertiary fossils at BGS.

Rennie, John (1761–1821)
March 1819 'MS only' Clay and gypsum from the bottom of the Thames opposite Heritage Dock [London]

Ricardo, David (1772–1823)
15 March 1811 TGS(1) 1 Fossil Teredo found in the Archway at Highgate [London]
1 January 1817 TGS(1) 4 Oolite from the Cotswold hills

Rich, William [dealer, of Bristol]
30 November 1841 TGS(2) 6 Ammonites and Belemnites from the Oxford Clay near Christian Malford [Wiltshire], and a geode from the Red Marl, Clevedon, Somerset (Also reported in PGS 3 p. 621, 18 February 1842, and listed at PGS 3 p. 563)
Jurassic fossils at BGS.

Richardson, Captain [63rd Regiment]
19 June 1812 TGS(1) 2 Specimens from Alderney

Richardson, Rev. Benjamin (?1759–1832)
12 October 1830 TGS(2) 3 and PGS 1 p. 261 Fossils from the neighbourhood of Farley, near Bath [Avon]
30 March 1831 TGS(2) 3 Fossils from the Greensand near Warminster. (Also reported in PGS 1 p. 351, 17 February 1832. *Letter, 3 March 1831, GSL Mus1/128)*
Carboniferous and Jurassic fossils at BGS.

Richardson, Charles [?1814–1896, railway engineer]
3 November 1841 TGS(2) 6 A specimen of Kelloways Sandstone from the neighbourhood of Oaksey, Wiltshire (Also reported in PGS 3 p. 621, 18 February 1842)

Richardson, H. T.
21 February 1868 QJGS 24 Rock-specimens from Bala (*Letter, 23 February 1867, GSL LDGSL30)*

Richardson, William [FGS]
9 April 1834 TGS(2) 4 Selenite from the London Clay near Herne Bay [Kent] (Also reported in PGS 2 p. 130, 20 February 1835) (Richardson, 1836)
8 December 1835 TGS(2) 5 Specimens of selenite from the sands of the plastic clay at Bishopstone Cliff, between Herne Bay and Reculvers [Kent] (Also reported in PGS 2 p. 342, 19 February 1836) (Richardson, 1836)
19 February 1841 PGS 3 p. 373 Specimens of Petrophiloides Richardsonii
19 February 1847 QJGS 3 Pecten and Pentacrinites in sandstone ‹of the Carboniferous Lime age›
Jurassic fossils at BGS.

Rickman, Charles
17 February 1860 QJGS 16 Tertiary fossils from Peckham [London] (Rickman, 1861)
Tertiary fossils at BGS.

Ridout, John (junr., fl.1808–1844)
15 November, 1811 TGS(1) 2 Specimens from the alum mine of Hurlet, near Paisley [Scotland]
1819 'MS only' Brush iron ore

Roberts, George Edward (1831–1865)
15 February 1861 QJGS 17 Specimens of fossil ferns from the Wyre Forest coal-field [Hereford and Worcester], and Ambonycia from Dudley [W.Midlands]
21 February 1862 QJGS 18 Plant-bed from Upper Tilestones of Kidderminster [Hereford and Worcester], with Lycopodites (Pachytheca sphaerica)
Silurian, Devonian, Carboniferous and Pleistocene fossils at BGS.

Robertson, Alexander (1816–1853/4)
Old Red Sandstone fossils from Kirkwall and Elgin, Scotland, at BGS

Robertson, [?David, 1806–1896]
3 May, 1837 TGS(2) 5 Specimens of coal plants from Rotherham [S.Yorkshire] (Also reported in PGS 2 p. 608, 16 February, 1838)

Robinson, Thomas
19 June 1818 TGS(1) 5 Trunk of a tree, Morley Park Colliery

Rofe, John (1801–1878)
26 February 1834 TGS(2) 4 Fossils from Plastic Clay near Reading [Berkshire] (Also

reported in PGS 2 p. 130, 20 February 1835. (*Letter, R. Hunter to G. B. Greenough, January 1834, GSL LR 1/23)* (Rofe, 1834)
10 June 1835 TGS(2) 4 Specimen of a Trilobite from Dudley [W.Midlands] (Also reported in PGS 2 p. 341, 19 February 1836)
19 February 1836 PGS 2 p. 341 Specimens from the Arigna Mines [Ireland] (*Letter, J. Rofe to C. Lyell, 12 May 1835, GSL Mus2/108)*
30 November 1841 TGS(2) 6 Slabs of Hutton roof-stone, exhibiting vermicular impressions (Also reported in PGS 3 p. 621, 18 February 1842)
Carboniferous fossils at BGS.

Rogers, Rev. John [?1778–1856]
8 July 1814 TGS(1) 3 Specimens from Cornwall, and the vertebra of a whale found in the stream works of Pentowan (*Letter, P. Serle to H. Warburton, 1814 GSL Mus1/17)*
17 March 1815 TGS(1) 3 Subcarburet of iron, Mawnan Glebe [Cornwall]
20 March 1822 TGS(2) 1 Specimens from Haldon [Devon]
15 March 1824 TGS(2) 2 Rocks from Cornwall

Rose, Caleb Burrel (1790–1872)
23 February 1837 TGS(2) 5 and PGS 2 p. 607 Specimens from the Chalk of Norfolk, and Recent shells
21 February 1855 QJGS 11 Echinodermata from the Chalk of West Norfolk, and fossils from the Nar Clay
19 February 1864 QJGS 20 Cast of fragment of a tooth of Mastodon from Swaffham, Norfolk
Cretaceous and Pleistocene fossils at BGS.

Rose, John
29 March 1822 TGS(2) 1 Part of a fossil vegetable, coal mines in Shropshire
Carboniferous fossils at BGS.

Ross, D.
14 December 1821 TGS(2) 1 Aggregated cubes of fluorspar forming octahedra from the Beer Alston Lead and Silver Mines, near Tavistock, Devon

Rosse, William, 3rd Earl, formerly Viscount Oxmantown (1800–1867)
1 May 1836 TGS(2) 5 Coal Shale, with Goniatites listeri, from the Bradford coal-field [W.Yorkshire] (Also reported in PGS 2 p. 464, 17 February 1837)
Carboniferous fossils at BGS.

Royal Society
18 February 1814 TGS(1) 2 Nodule of ironstone ‹from the Huddersfield Canal›

Ruskin, John (1819–1900)
16 February 1844 PGS 4 p. 342 Fossils from the Stonesfield Slate, Oxon
Jurassic fossils at BGS.

Russell, J. W.
6 June 1822 TGS(2) 1 Two fossil tusks and other bones of the Mammoth found at Ilford, in Essex

Russell, Mr
Coal Measure fossils from Glasgow at BGS

Ruthven, John (ob.1868)
Ludlow fossils from Howgill Fells, Yorkshire, at BGS.

Rutley, Frank (1842–1904)
20 February 1903 QJGS 59 Two microscope-sections of altered siliceous sinter from Builth (Brecknockshire)

Ryan, James
4 November 1808 TGS(1) 1 Specimens from the neighbourhood of Dudley [W.Midlands] (*Catalogue of specimens, n.d., GSL Mus1/94)*
2 December 1808 TGS(1) 1 Specimens from Ireland

Rylands, Thomas Glazebrook (1818–1900)
21 February 1868 QJGS 24 Microscopic slide of fossil wood, from the Permian, Ashby (*Letter, 13 May 1867, GSL LDGSL30)*

Salisbury, Miss Diana or Otteline
9 June 1821 TGS(1) 5 Fossils from Hordle Cliff, Hampshire
8 May 1824 TGS(2) 2 Fossil shells from Hordwell Cliff [Hampshire]

Salmon, Henry Curwen (1827/8–1873)
21 February 1862 QJGS 18 Two specimens of boulders (granite) from the West Rosewarne Mine, Gwinear, Cornwall (Salmon, 1861)

Salmond, William (d. 1838)
26 June 1823 TGS(2) 1 Stalactite ‹and limestone› from Kirkdale Cave [N.Yorkshire]

Salter, James William (1820–1869)
20 February 1863 QJGS 19 Two nodules from the upper Devonian of West Angle Bay, Pembrokeshire*
19 February 1864 QJGS 20 Cast of a specimen of Paradoxides davidis; Salt from the Lower Lingula-flags of St David's [Dyfed] (Salter, 1863)
* *A rock specimen, attributable to Salter, and possibly connected with this donation, survives in the Department of Mineralogy, BM(NH).*
There are Lower Palaeozoic fossils at BGS.

Salway, Rev. Thomas (1791–1877)
10 September 1833 TGS(2) 4 Specimens from the Mountain Limestone in the neighbourhood of Tenby [Dyfed] (Also reported in PGS 2 p. 29, 21 February 1834. *Letters, 20 August 1833, GSL Mus2/6, 10 and 30 August 1833)*

Sanford, William Ayshford (1818–1902)
Upper Greensand fossils from East Knoyle, Wiltshire, presented in 1859 at BGS
Cretaceous fossils at BGS.

Sargent, Frederick [MGS]
8 November 1820 TGS(1) 5 Calcareous spar from the Chalk in Sussex (Sargent, 1822)

Saull, William Devonshire (1784–1835)
11 May 1831 TGS(2) 3 Fossils from the Coral Rag of Yorkshire (Also reported in PGS 1 p. 351, 17 February, 1832)
Jurassic fossils at BGS.

Sclater, Mr
Greensand fossils from Haldon, Devon, and Blackdown, Dorset, at BGS.

Scott, Rev. Thomas Hobbes (1783–1860)
8 May 1824 TGS(2) 2 Specimens of the lead strata in the district of Alston, with a printed reference by Westgarth Forster, Esq.; specimens of the strata in the Hetton Colliery, Durham

20 January 1836 TGS(2) 5 Specimens of sandstone, with impressions of plants, from the neighbourhood of Whitfield [Northumberland] (Also reported in PGS 2 p. 342, 19 February 1836, as being from 'J. H. Scott'. *Letter, T. H.Scott to W. Lonsdale, 28 November 1835, GSL Mus2/70)*

Scouler, John (1804–1871)

16 November 1836 TGS(2) 5 Specimen of a fossil crustaceous animal, from the Coal Formation near Glasgow (Also reported in PGS 2 p. 464, 17 February 1837)

Carboniferous fossils at BGS.

Scourfield, William Henry (1775/6–1843)

6 May 1841 TGS(2) 6 Fossils from Clarbeston, Pembrokeshire (Also reported in PGS 3 p. 620, 18 February, 1842. *Letters, H. Still to W. Lonsdale, 8 April 1841, and W. H. Scourfield to [W. Lonsdale], 26 April 1841, GSL Mus2/22, 63)*

Scrope, George Poulett (1789–1863)

31 December 1832 TGS(2) 3 Specimens of Forest Marble from the neighbourhood of Castlecomb [Wiltshire] (Scrope, 1831) (Also reported in PGS 1 p. 427, 15 February 1833)

Jurassic fossils at BGS.

Sedgwick, Rev. Adam (1785–1873)

11 May 1822 TGS(2) 1 Specimens of Magnesian Limestone* (*Catalogues of specimens n.d., GSL Mus1/14 & Mus2/101)* (Sedgwick, 1829)

18 April 1823 TGS(2) 1 Specimens of oolite from Yorkshire*; specimens from the Isle of Portland; specimens of rocks in contact with trap from the Great Whin Dyke in Yorkshire ‹listed in detail in Waste Book, 18862–19070›

26 June 1823 TGS(2) 1 Specimens of Magnesian Limestone from the south of the River Tees* ‹listed in detail in Waste Book, 20391–20562› (Sedgwick, 1829)

* *Some thirty specimens of Magnesian Limestone from various localities in the north of England and a specimen from Robin Hood's Bay, Yorkshire, may illustrate a paper on the New Red Sandstone by Sedgwick (1829). Three former Geological Society Museum rock specimens from 'Lincolnshire and Cambridgeshire' also survive in the Department of Mineralogy, BM(NH). Additionally there is a mineral specimen of cassiterite from 'Cornwall', now BM1911,556.*

There is a large collection of fossils at BGS.

Sedgwick, A. and R. I. Murchison

15 November 1827 TGS(2) 2 Additional fossils of the Oolitic Series in Scotland (Sedgwick & Murchison, 1829*a*)*

15 January 1828 TGS(2) 2 Specimens to illustrate a memoir on the Secondary strata of the Isle of Arran, by Prof. Sedgwick and R. I. Murchison (Sedgwick & Murchison, 1829*b*). (Also reported in PGS 1 p. 47, 15 February, 1828)*

13 May 1828 TGS(2) 2 and PGS 1 p. 106 Suite of rocks and organic remains from the North of Scotland, to illustrate a memoir by Prof. Sedgwick and R. I.Murchison (Sedgwick & Murchison, 1829*a*)*

* *Numerous rock specimens from Skye and Ross are now in the Department of Mineralogy, BM(NH). Also surviving are specimens from Arran, material from Eigg, and we have provisionally identified material from the 'Oolitic Series' of north east Scotland*

Seeley, Professor Harry Govier (1839–1909)

15 February 1878 QJGS 34 A cast of bone of Megalornis emuianus, Bowerbank, from the London Clay of Eastchurch, Isle of Sheppey [Kent]

Selkirk, Thomas Douglas, 6th Earl of, (1809–1885)

17 February 1843 PGS 4 p. 50 Graptolites and rock specimens from Scotland

15 February 1861 QJGS 17 Specimens of peat and shells from Stirlingshire

Silurian fossils at BGS.

Serle, Rev. Phillip (1785/6–1857)
23 April 1813 TGS(1) 2 Actynolite from Cullen Point [Scotland] (*Letter, 19 April 1814, GSL Mus1/91)*
6 May 1814 TGS(1) 2 Alcyonia from Stockenchurch Hill, Oxfordshire
8 July 1814 'MS only' Specimens from Cornwall
Jurassic and Cretaceous fossils at BGS.

Sharpe, Daniel (1806–1858)
8 and 30 January 1842 TGS(2) 6 Psammodus porosus and other fossils, from the Mountain Limestone near Kendal [Cumbria] (Also reported in PGS 3 p. 622, 18 February, 1842)
17 February 1843 PGS 4 p. 50 Fossils from the Carboniferous Limestone and Silurian Rocks in the neighbourhood of Kendal (Sharpe, 1843)
18 February 1853 QJGS 9 Specimen of *Nautilus pseudoelegans*, from the Grey Chalk of Lewes [E.Sussex]
17 February 1854 QJGS 10 Suite of fossils from Farringdon [Hampshire] (Sharpe, 1854)
There is a large collection of fossils at BGS.

Sheffield, W. E. [of Somers Town]
1 April 1814 TGS(1) 2 Simple minerals*
3 June 1814 TGS(1) 2 Chrysocolle from the Vale of Newlands near to Keswick [Cumbria]
* *A specimen of cerussite (BM1911,588) from Grassington, Yorks, is noted in the BM(NH) records as being given to the Geological Society by Sheffield on 21 March 1814.*

Sheringham, Lieutenant
23 February 1837 TGS(2) 5 Specimens from Sarn Badrig, Cardigan Bay (Also reported in PGS 2 p. 607, 16 February, 1838)
6 May 1841 TGS(2) 6 Rock specimens from the Smalls Lighthouse (Also reported in PGS 3 p. 621, 18 February, 1842)

Shipp, William [of Landford, Dorset]
21 February 1845 PGS 4 p. 534 Specimen of Unio valdensis (Mantell) from the Wealden of Brook Point, Isle of Wight
Cretaceous fossils at BGS.

Shrubsole, William Hobbs (1837–1927)
19 December 1888 'MS only', two slides of radiolaria from the London Clay of Sheppy [Kent]. See *Abstract* No. 528 p. 13 (Shrubsole, 1889)

Sibthorpe, Allan
1 June 1838 TGS(2) 5 Remains of fossil fishes from Goldworth Hill, near Guildford [Surrey] (Also reported in PGS 3 p. 45, 15 February, 1839)

Simms, Frederick Walter (1803–1865)
16 February 1844 PGS 4 p. 341 Paludinae and Uniones from the junction of the London and Plastic clays in the Railway cutting at New Cross [London]; Fossils from the Gault near Folkstone [Kent]; Series of fossils obtained in sinking a shaft in the Lower Greensand at Hythe, Kent; Fossils from the Lower Greensand at Atherfield in the Isle of Wight; and remains of plants, cyprides and fish from the Wealden Clay, found in making the tunnel at Blechingley, Surrey (*Letter, F. W. Simms to H. Warburton, 30 April 1843, GSL LR8/38)*
Cretaceous fossils at BGS.

Simms, T. W.
1 February 1838 TGS(2) 5 Specimen of the asphaltic mastic

Skey, Joseph [M.D.]
19 June 1812 TGS(1) 2 Specimens from Yorkshire

Skinner, Rev. John
Coal Measure plants from Poulton, Merseyside, at BGS

Smith, Edward
3 June 1814 TGS(1) 2 Specimens from the Pentowan stream works near St. Austle, Cornwall (Smith. 1817)*
* *Seven of these samples survive in the Department of Mineralogy, BM(NH).*
Pleistocene fossils at BGS.

Smith, F. J. and J. Prestwich. See Prestwich & Smith

Smith, George Varty (1849/50–1924)
20 February 1885 QJGS 41 Casts of footprints in the Lower New Red Sandstone of Penrith, illustrating the paper in Q.J.G.S. vol. xl. p. 479 (Smith, 1884)

Smith, James (1782–1867)
31 August 1841 TGS(2) 6 Fossils from the Freshwater Beds, Isle of Wight (Also reported in PGS 3 p. 621, 18 February 1842)
24 February 1847 'MS only', several specimens of wood from a submerged forest on the coast of Jersey
Quaternary fossils at BGS.

Smith, Rev. John Pye (1774–1851)
23 May 1838 TGS (2) 5 A specimen of Dapedium orbis (Agassiz), from Barrow-upon-Soar [Leicestershire] (*Letter, J. P. Smith to W. Lonsdale, 21 May 1838, GSL Mus2/21*)
15 February 1839 PGS 3 p. 45 A Tetragonolepis (Agassiz), from Barrow-upon-Soar, Leicestershire

Smith, Joshua Toulmin (1816–1869)
Upper Chalk sponges at BGS

Smiths, Mrs [of Tunbridge Wells]
21 February 1845 PGS 4 p. 534 Specimens from the London Clay, Chalk and Wealden
Cretaceous and Tertiary fossils at BGS.

Smith, Newman
21 February 1840 PGS 3 p. 195 A fossil from the Chalk at Merstham [Surrey] (*Letter, C. Stokes to W. Lonsdale, 1 December 1839, GSL Mus2/32*)

Smith, W. J. B.
21 February 1868 QJGS 24 Nodule from the valley of Lledoer, North Wales

Snow, Bernard Geary (d.1841)
21 March 1828 TGS(2) 2 Fossils from the London Clay at Highgate [London] (Also reported in PGS 1 p. 106, 20 February 1829)
16 January 1829 TGS(2) 2 Fragment of Lias, with cast of an ammonite from the gravel at Muswell Hill, Middlesex
10 June 1841 TGS(2) 6 Remains of Mammalia found in peat, in making a new dock at Woolwich [London] (Also reported in PGS 3 p. 621, 18 February 1842)
Tertiary and Quaternary fossils at BGS.

Soda and Man, Bishop of
20 May 1825 'MS only', fossil bones of the elk found in the Isle of Man, with a specimen of the marle in which it was found

Sollas, William Johnson (1849–1936)
20 February 1880 QJGS 36 Casts of three-toed foot-prints from the Triassic conglomerate of south Wales (Sollas, 1879)

Solly, Samuel (fl.1810–1852)
7 May 1813 TGS(1) 2 Topaz and apatite, St Michael's Mount, Cornwall
15 April 1816 TGS(1) 3 Specimen of a vein of blende in the slate near North Shields [Tyne and Wear] and specimens of burnt shale ‹from a colliery waste heap›

Somerville, William [M.D.], and H. J. Brooke, Esq.
21 March 1817 'MS only', specimens from Barnstaple and Bovey Tracy [Devon]

Sorby, Henry Clifton (1826–1908)
21 February 1855 QJGS 11 Specimens of impressed sandstones from the Lower Carboniferous rocks of Yorkshire
Carboniferous fossils at BGS.

Soulby, Mr
24 January 1866 'MS only', Sagenaria dichotoma from Coal Measures of Derbyshire

Sowerby, James (1757–1822)
2 June 1808 TGS(1) Specimens of Kimeridge coal &c. (*Letter, [1808], GSL LDGSL1/3)*
3 November 1809 TGS(1) 1 A large mass of Marble from Tiree, one of the Hebrides (*Letter, 31 October 1809, GSL Mus1/22)*
1 December 1809 TGS(1) 1 A specimen of fossil Alycynium found at Farringdon, Berks
6 December 1811 TGS(1) 2 Sulphat of strontian from Knaresborough [N.Yorkshire]*
3 April 1812 TGS(1) 2 An undescribed fossil shell from Shropshire
* *A specimen of celestine (BM1911,616) from Knaresborough, Yorks, is noted in the BM(NH) records as being donated to the Geological Society in 'Nov 1811'.*

Sowerby, James De Carle (1787–1871)
21 February 1834 PGS 2 p. 28 Specimen of manganese from Upton Pyne [Devon]
December 1837 'MS only' Minerals from Woolwich, London (*Letter, 22 December 1837, GSL Mus2/25*)
Carboniferous, Jurassic and Tertiary fossils at BGS.

Sparks, Joseph [of New Cross]
21 February 1862 QJGS 18 Specimen of Cyrena Bed from New Cross [London]
Tertiary fossils at BGS.

Spencer, Edward [FGS] (fl.1830–1837)
9 December 1830 TGS(2) 3 Fossils from Malton, Yorkshire (Also reported in PGS 1 p. 261 18 February 1831)
25 February 1832 TGS(2) 3 Cast of the head of a crocodile found in the London Clay at Sheppey [Kent] (Also reported in PGS 1 p. 426, 15 February 1833)
Jurassic fossils at BGS.

Spencer, J. F. [of Fonthill Gifford]
21 February 1851 QJGS 7 Specimen of silicified coral from Tisbury, Wilts
Jurassic fossils at BGS.

Spicer, Northcote, W. [of Chard]
20 February 1863 QJGS 19 Large specimen of Ammonites rusticus, from the Chalk near Chard, Somerset

Stanley, Rev. Edward (1779–1849)
18 December 1812 TGS(1) 2 Cobalt ore from Alderley Edge, Cheshire

Staples, W. and Rev. G. Gordon. See Gordon and Staples

Staples, W., G. Gordon and J. G. Malcolmson. See Malcolmson, Gordon and Staples

Stapleton, Rev. J. C. [FGS] (fl.1832–1844)
16 February 1844 PGS 4 p. 342 Sandstone cast of a Coal Measure plant (Bothrodendron) from Keynsham [Avon]

Statham, J. L. [of London]
19 February 1858 QJGS 14 Specimen of polished coral from Devon

Stevens, Henry (d.1866)
17 February 1843 PGS 4 p. 50 Clay containing small bones from a superficial deposit near Duffield [Derbyshire]
Pleistocene fossils at BGS.

Stevens, W.
Carboniferous Limestone fossils from Matlock, Derbyshire, at BGS

Stewart, Colonel David (1772–1829)
9 July 1817 TGS(1) 5 Recent shells
16 January 1818 'MS only', simple minerals ‹from Devon and Cornwall›

Still, Henry (1808/9–1885)
13 March 1839 TGS(2) 5 Plants from the Pembrokeshire coal-field. (Also reported in PGS 3 p. 194, 21 February 1840)
Ordovician, Silurian and Carboniferous fossils at BGS.

Stock, Edward [of Poplar]
17 February 1843 PGS 4 p. 50 Valvata antiqua and Unio pictorum from the Pleistocene deposit at Grays, Essex (*Letter, 9 November 1842, GSL LR7/233)*
Pleistocene fossils at BGS.

Stokes, Charles (1783–1853)
3 June 1814 TGS(1) 2 Fossil belemnites
2 June 1815 'MS only', fossil madrepore
15 April 1816 TGS(1) 3 Two specimens of Entomolites ‹from Dudley›, specimen of the Prodragus of Montfort and three univalve fossil shells from Highgate [London], and specimens of septaria from ditto
20 July 1816 TGS(1) 4 Flint from the Chalk at Guildford, with a recent sponge resembling it in general form
1 August 1816 TGS(1) 4 Fossils organic remains from the Chalk
25 October, 1816 TGS(1) 4 Organic remains from the Lyas near Charmouth [Dorset]
31 January 1817 TGS(1) 4 Arseniate of copper ‹from Cornwall› January 1817 'MS only' Specimens of Chalk and fossils from Guildford [Surrey]
18 April 1817 Casts of bivalves from the sand at Chobham [Surrey]
13 October 1817 TGS(1) 5 Simple minerals
5 November 1817 TGS(1) 5 Fossil tooth of a fish from the Chalk ‹Beachy Head [E.Sussex]›
20 February 1818 TGS(1) 5 Portions of two fossil jaws of the elephant, with teeth ‹from Walton›, and a specimen of the Hertfordshire pudding stone ‹rejected›
June 1818 'MS only' Rocks and fossils from the Mountain Limestone and Coal Measures of Clevedon and Portishead, ‹catalogued in detail in the Waste Book, 13982–13999›

14 December 1818 TGS(1) 5 Two specimens of stone for lithography
1 February 1819 TGS(1) 5 Fossils from the Mountain Limestone near Bristol [Avon]
6 January 1820 'MS only' Nautilus from the Lias at Lyme Regis [Dorset]
4 March 1820 TGS(1) 5 Specimen of a fossil Inoceramus shewing the hinge
10 May 1820 TGS(1) 5 Specimen of English Strata
28 May 1820 TGS(1) 5 Specimen of foliated white antimony
3 August 1820 TGS(1) 5 Lead ore in trap ‹from Derbyshire› (Stokes, 1822)
9 November 1820 TGS(1) 5 Fossils from the Mountain Limestone; fossil fish from the Lias at Lyme Regis [Dorset]
27 November 1821 'MS only' Fossils from the Greensand at Blackdown [Devon]; rocks from Cornwall
16 February 1822 'MS only' Fossils from Greensand at Blackdown [Devon]
20 December 1822 TGS(2) 1 Shells in Grauwacke slate from the Glyder Bach near Capel Carig [Curig]
3 January 1823 TGS(2) 1 Specimens of Endellion ‹with blende› and carbonate of iron ‹from Cornwall›
19 April 1823 TGS(2) 1 Specimens of the Bradford Encrinite
Mid 1820s 'MS only' Coal impressions, Dudley Coalfield [West Midlands]
19 May 1826 TGS(2) 2 Specimens from a well, sunk in the London Clay
4 October 1828 TGS(2) 2 Fossil plants in coal shale from Merthyr Tydfil [Mid. Glamorgan] (Also reported in PGS 1 p. 106, 20 February 1829)
10 March 1836 TGS(2) 5 Fossils from Hordwell Cliff [Hampshire] (Also reported in PGS 2 p. 463, 17 February 1837)
20 February 1846 QJGS 2 Specimen of gypsum
A large collection of fossils is held at BGS.

Stone, Henry [of London]
21 February 1845 PGS 4 pp. 534–5 Fossils from the Lower Greensand, Faringdon, Berks., and an ammonite from the Red Chalk, Hunstanton [Norfolk]
Cretaceous fossils at BGS.

Strangways, William Thomas Horner Fox (1795–1864), later Earl of Ilchester
2 March 1821 TGS(1) 5 Recent Echinus
12 March 1821 TGS(1) 5 Gypsum from the Isle of Purbeck [Dorset]
22 March 1821 TGS(1) 5 Lyas Marble from Bridport [Dorset] 26 June 1823 TGS(2) 1 Charnites [Chamites] from the Greensand ‹of Dorset›

Street, Rev. H.
Devonian fossils from Torquay, Devon, at BGS

Strickland, Hugh Edwin (1811–1853)
4 December 1834 TGS(2) 4 Cast of a molar tooth of Mastodon angustidens from the Crag, Suffolk (Also reported PGS 2 p. 131)
20 February 1835 PGS 2 p. 131 Shells from the loam and gravel at Cropthorne, Worcestershire (*Letter, 18 February 1835, GSL LR1/193)* (Strickland, 1834)
December 1841 TGS(2) 6 Fossils from the Lias of Gloucestershire (Strickland, 1842). (Also reported in PGS 3 p. 622, 18 February 1842 and listed at PGS 3 p. 562)
16 February 1844 PGS 4 p. 341 Slab of Keuper Sandstone with footsteps from Warwickshire; Specimen of Hybodus keuperi and other fossils from Keuper Sandstone of Warwickshire* and Gloucestershire* (Murchison & Strickland, 1840); Specimens from the Lias bone-bed at Coomb Hill and Defford Common, Gloucestershire; Remarkable concretions from the Tertiary Beds in the Isle of Man* (Strickland, 1843); Slabs with impressions caused by the motions of mollusca, &c. from the Lias,

Wainlode Cliff, Gloucestershire (Strickland, 1838); Freshwater shells from the Wealden Beds, Shotover Hill*, Oxon. Presented at various times
1 December 1852 'MS only', pseudomorphous crystals of halite, Keuper Sandstone (Strickland, 1853*a*)
18 February 1853 QJGS 9 Suite of specimens from the Ludlow Bone Bed at Hagley Park, Herefordshire (Strickland, 1853*b*)

* *Many of Strickland's New Red Sandstone rock specimens from Worcestershire, Warwick, Gloucestershire and Somerset given to the Geological Society Museum exist in the Department of Mineralogy, BM(NH). Also surviving are the sandstone concretions from the Isle of Man.*

Silurian, Triassic, Jurassic and Cretaceous fossils exist at BGS.

Strutt, J. D.
5 December 1817 'MS only', calcedony on chert from Bakewell and green fibrous limestone from Matlock [Derbyshire]

Stutchbury, Samuel (1797–1859)
3 November 1841 TGS(2) 6 Ammonites from the Oxford Clay between Wootton Bassett and Chippenham [Wiltshire]; Specimens of Pachyodon; and palatal teeth of Acrodus from the Lias (Also reported in PGS 3 p. 621, 18 February 1842, and listed at PGS 3 p. 562)
19 February 1847 QJGS 3 Cast of head and paddle of a new species of Plesiosaurus ‹P. megacephalus›

Jurassic fossils at BGS.

Stutherd, Mr

Liassic corals at BGS

Sutherland, Alexander Robert (d.1861)
4 March 1814 TGS(1) 2 Fossil nautilus and crystallized selenite ‹from Regent's Park, London›
April 1842 (otherwise undated) TGS(2) 6 A polished agate

Symons, J.

Upper Chalk fossils from Trimingham, Norfolk, at BGS

Symonds, Sir William (1782–1856)
20 February 1846 QJGS 2 Specimen of the Pholas clavata in teak timber

Cretaceous fossils at BGS.

Symonds, Rev. William Samuel (1818–1887)
20 February 1857 QJGS 13 Specimens of altered syenite from the Malverns [Hereford and Worcester] (Symond, 1856)
21 February 1862 QJGS 18 Specimens of bones and rocks from the cuttings and tunnels of the Worcester and Hereford Railway (Symonds & Lambert, 1861)

Taddy, Mrs and Miss Morris. See Morris & Taddy

Tagart, Rev. Edward (1804–1858)
19 February 1847 QJGS 3 Cast in Hastings Sand of a supposed gigantic footstep ‹from Hastings [E.Sussex]› (Tagart, 1846)

Cretaceous fossils at BGS.

Tate, George (1805–1871)
16 February 1849 QJGS 5 Specimens from the Mountain Limestone, Alnwick [Northumberland]

17 February 1854 QJGS 10 Three specimens of Hydnophora cyclostoma from the Carboniferous Limestone
Carboniferous fossils at BGS.

Tate, Ralph (1805–1901)
17 February 1865 QJGS 21 Fossils from the Lias of England and Ireland (Tate, 1867)*
* *Four of Tate's specimens of sedimentary rock from Belfast and Antrim are now in the Department of Mineralogy, BM(NH). There are also seven specimens of an apparently unrecorded donation from Northern Ireland illustrating a paper by Tate & Holden (1870: 160). There are Jurassic, Cretaceous and Tertiary fossils at BGS.*

Tawney, Edward Bernard (1841–1882)
Fossils from the Sutton Stone at BGS (Tawney, 1866)

Taylor, B. C.
Corallian fossils from near Oxford at BGS

Taylor, G.
Coal Measure fossils from Rotheram, Yorkshire, at BGS

Taylor, H.
Lower Chalk fossils from Dover, Kent, at BGS

Taylor, John (1780–1863)
1 May 1812 TGS(1) 2 Calcareous spar from Tavistock [Devon]
1 April 1814 TGS(1) 2 Specimens illustrative of Mr Taylor's section of the tunnel of the Tavistock canal (Taylor, 1817*a*)
5 January 1816 TGS(1) 3 Specimens of coke (Taylor, 1817*b*)
6 December 1816 TGS(1) 4 Specimens of simple minerals
4 March 1820 TGS(1) 5 Native carbonate of zinc from Lord Ribbesdale's Mines, Yorkshire
11 December 1820 TGS(1) 5 Copper ore from the Calley copper mine in Scotland (Taylor, 1822)*
15 February 1821 TGS(1) 5 Capillary red oxide of copper, and schorl in quartz, Cornwall
2 April 1821 TGS(1) 5 Chert from the Mountain Limestone, Halkin, Flintshire
6 February 1823 TGS(2) 1 Specimens of Yellow Copper Ore 26 June 1823 TGS(2) 1 Ores of silver ‹from Cornwall›
26 June 1823 TGS(2) 1 Phosphate of lead from Huel Alfred Mine, Cornwall and a new variety of blende from the mine called Fowey Consols, near Fowey, Cornwall*
19 November 1824 TGS(2) 2 Specimen of a lately discovered ore of lead from a cross vein in Huel Alfred Mine, Cornwall
17 February 1826 TGS(2) 2 White tin ore from St Agnes, Cornwall*
* *A specimen of chalcopyrite corresponding to the donation of 11 December 1820 is noted in the BM(NH) records as being given to the Geological Society Museum by Taylor on '10 Dec 1820'. This is now BM1911,548. A specimen of sphalerite (BM1911,547) is noted in the same records as being given to the Geological Society on '19 Dec 1823'. The specimen of cassiterite (BM1911,558) perhaps corresponds to the St Agnes tin ore donation of 17 February 1826.*
There are Tertiary fossils at BGS.

Taylor, John, junr. (d.1881)
12 January 1832 TGS(2) 3 Fossil corals from Flintshire (Also reported in PGS 1 p. 352, 17 February 1832)
Carboniferous fossils at BGS.

Taylor, R. [FGS, of Perran, Cornwall]
1 June 1834 TGS(2) 4 Slickensides from Cornwall

Taylor, Richard (1781–1858)
2 January 1823 TGS(2) 1 Specimens of belemnites

Taylor, Richard Cowling (1789–1851)
15 November 1827 TGS(2) 2 Recent fluviatile shells from Little Brandon, Norfolk
5 February 1830 TGS(2) 3 and PGS 1 p. 178 Specimens from the Crag of Suffolk
16 February 1844 PGS 4 p. 343 Fragment of the 'Blackwall Rocks' (Conglomerate of the Plastic Clay)
Carboniferous, Tertiary and Quaternary fossils at BGS.

Taylor, S. junr.
27 October 1827 TGS(2) 2 Peacock coal from Abersychan, south Wales

Taylor, William (d.1840)
20 January 1836 TGS(2) 5 Fossil plants from the Coal Measures at Barnsley, Yorkshire (Also reported in PGS 2 p. 342, 19 February 1836)
6 May 1841 TGS(2) 6 Two teeth of Otodus obliquus from the London Clay, Walton, Essex (Also reported in PGS 3 p. 620, 18 February 1842)
Tertiary fossils at BGS.

Tennant, James (1808–1881)
Jan 1841 TGS(2) 6 Models of saurian remains from the Weald of Kent
17 November 1841 TGS(2) 6 Cast of a cranium of Rhynchosaurus, from the New Red Sandstone near Shrewsbury [Shropshire] (Also reported in PGS 3 p. 622, 18 February 1842)
22 March 1842 TGS(2) 6 Three models of fossils, described in Prof. Owen's Report on British Fossil Reptiles
17 February 1843 PGS 4 p. 50 Specimens of Voluta lima from Hordwell [Hampshire]; Orthis canalis and Cyclolites from the Wenlock Shale; and casts of vertebrae of Streptospondylus cuvieri from the Lias of Whitby [N. Yorkshire], and two ungual phalanges of Iguanodon from the Wealden formation at Horsham [Surrey]
21 February 1845 PGS 4 p. 534 Fossils from the Wenlock Limestone and London Clay
19 February 1847 QJGS 3 Spiral appendages of a Spirifer in chert, from Ashford [Derbyshire]
16 February 1849 QJGS 5 Cast of head of Crocodilus spenceri from Isle of Sheppey [Kent]
19 February 1858 QJGS 14 Specimens of Asterias from the London Clay
15 February 1878 QJGS 34 A gilt model of the gold nugget found April 1869 at Kildonan, Sutherland
Silurian, Carboniferous, Permian, Jurassic and Cretaceous fossils at BGS.

Terry, Lieutenant William George (fl.1817–1858)
9 November 1820 TGS(1) 5 Fossils from English Strata
Carboniferous fossils at BGS.

Thomas, Alfred (d.1855)
16 February 1844 PGS 4 p. 342 A fossil(?) found near Aberystwyth [Dyfed]

Thompson, William (1805–1852)
December 1840 TGS(2) 6 A series of specimens obtained while boring for water at Poole [Dorset] in 1838 and 1839 (Also reported in PGS 3 p. 373, 19 February 1841. *Note, 12 February 1840, GSL Mus2/95*)

20 February 1846 QJGS 2 Specimen of Orthoceratite from the Mountain Limestone of Ireland

Thomson, James (1823–1900)
Carboniferous Limestone fossils from Corrie, Scotland, at BGS

Thornton, Rev. William (1806–1881)
30 September 1833 TGS(2) 4 Bones of the elephant, rhinoceros and ox from the gravel at Brockhall Lawford [Northamptonshire] (Also reported in PGS 2 p. 29, 21 February 1834)
10 June 1834 TGS(2) 4 and PGS 2 p. 341 Specimens ‹bones› from the Diluvium at Lawford [Northamptonshire]

Tomes, Robert Fisher (1823–1904)
Jurassic fossils at BGS.

Topley, William (1841–1894)*
* *A rock specimen from Battle, Hastings, attributable to this unrecorded collector, survives in the Department of Mineralogy, BM(NH).*
There are fossils from boreholes at BGS.

Traill, Thomas Stewart (1781–1862)
9 August 1815 TGS(1) 3 Iserine ‹clay› from the Cheshire shore opposite Liverpool (Traill, 1817)
9 September 1815 'MS only', iron sand from Cheshire

Traherne, Rev. John Montgomery (1788–1860)
24 May 1819 TGS(1) 5 Specimens from ‹St.Hilary's› Glamorganshire
Triassic fossils at BGS.

Trevelyan, Walter Calverley (1797–1879)
26 June 1823 TGS(2) 1 Specimens to illustrate a plan of part of the coast of Northumberland; specimens from the Ferroe [Faroe] Islands ‹listed in detail in the Waste Book, 19769–19823›
10 February 1824 TGS(2) 2 Fragment of the upright stone in Rudstone Churchyard, near Bridlington, Yorkshire
10 January 1827 TGS(2) 2 Millstone Grit, containing small fragments of garnets
20 April 1827 TGS(2) 2 Specimens from the Whin Dyke in Cowpen Colliery, near Blyth in Northumberland
10 June 1828 TGS(2) 2 Two specimens from Tyne-Bottom-Limestone, Rowgill, near Alston, Cumberland; and one from a bed of conglomerate in diluvium, near Mitford in Northumberland
14 August 1834 TGS(2) 4 Specimens from the Channel Islands (Also reported in PGS 2 p. 131, as from Jersey, Guernsey and Sark)
28 June 1841 TGS(2) 6 A concretion from the Old Red Sandstone of Auchmithie near Arbroath [Scotland] (Trevelyan, 1845); and a specimen of limestone furrowed by drifted sand (Also reported in PGS 3 p. 621, 18 February 1842)

Trimmer, Joshua (1795–1857)*
23 June 1841 TGS(2) 6 A series of freshwater and land shells, from Swale Cliff, Herne Bay, and Faversham, Kent (Also reported in PGS 3 p. 621, 18 February 1842, with the donation below)*
28 June 1841 TGS(2) 6 Fossils from Boughton Hill (Also reported in PGS 3 p.621, 18 February 1842, with the above donation)
16 February 1844 PGS 4 p. 342 Fossils from the Cambrian slates of Pwllheli and Dolgelly [Gwynedd]

21 February 1855 QJGS 11 Shells from the mammaliferous gravel-beds of Orton [Northamptonshire] (Trimmer, 1854)

* *A rock specimen from the 'Oldhaven Beds', perhaps corresponding to the donation of 23 June 1841, is extant in the Department of Mineralogy, BM(NH). Additionally two rock specimen, one from Clevedon, Somerset (Trimmer, 1853) and the other from Norfolk also survive, and there are four rock specimens from the Shrewsbury area of an apparently undated donation illustrating a paper by Trimmer (1835).*
There are Tertiary and Quaternary fossils at BGS.

Trotter, Robert (d.1877)
16 March 1832 TGS(2) 3 Casts of two toe-bones found near Cuckfield [W.Sussex] (Also reported in PGS 1 p. 426 15 February 1833).

Tucker, Benjamin (d.1850/51)
9 August 1837 TGS(2) 5 Specimens of iron ore from Cornwall (Also reported in PGS 2, p. 608, 16 February 1838)

Tucker, John (1792/3–1873)
30 September 1817 TGS(1) 5 Fossils from the Grey Chalk Marl, near West Malling, Sussex [Kent]
21 November 1817 'MS only' Anomiae from the white marl at Folkstone [Kent]
Cretaceous fossils at BGS.

Tudor, John Owen [MGS]
3 December 1813 TGS(1) 2 Organic remains from Corwen in north Wales
15 April 1814 TGS (1) 2 Labrador felspar
Carboniferous fossils at BGS.

Tufnell, Rt Hon. Henry (1805–1854)
18 February 1853 QJGS 9 Specimens of fossil plants from the Shetland Islands (Tufnell, 1853)

Turner, Samuel (d.1849)
6 May 1814 TGS(1) 2 Fossil wood ‹from Stonesfield [Oxfordshire]› and Recent shells
2 February 1815 TGS(1) 3 Fossil teeth and part of a Crocodile's jaw, from Stonesfield [Oxfordshire]
17 March 1815 TGS(1) 3 Crystallized slag from a furnace ‹at Cobham›
Jurassic fossils at BGS.

Turner, Rev. William (1761–1859)
6 January 1809 TGS(1) 1 Specimens of the Whin-dyke and contiguous strata at Walker Colliery, Newcastle upon Tyne (*Letter, W. Turner to J. Laird, 25 June 1808, GSL LDGSL28)*

Twamley, Charles (ob.1887)
Coal Measure and Wenlock fossils from Dudley, West Midlands, at BGS

Twopenny, Mrs [of Rochester]
1 May 1828 TGS(2) 2 Fossil nautilus from Sheppy [Kent]

Tyler, James Endell (1789–1851)
17 April, 1815 TGS(1) 3 Mountain Limestone, three miles from Newport, Gloucestershire

Tylor, Alfred (1824–1884)
Coralline Crag fossils from Orford, Suffolk, at BGS

Underwood, Thomas Richard (fl.1813–1827)
9 November 1820 TGS(1) 5 Native copper on sulphate of barytes, Parys Mine [Anglesey]*
16 January 1824 TGS(2) 2 Limestone from Cotehele, Cornwall
* *This is the specimen of native copper now in the Department of Mineralogy, BM(NH), numbered BM1911,544.*

Verschoyle, Archdeacon
Carboniferous fossils from Ireland are at BGS.

Vetch, Captain James (1789–1869)
4 November 1817 TGS(1) 5 Specimens of chalk fused by heat, and of tufa from a boiler; specimens from Scotland ‹listed in detail in the Waste Book, 12665–12685›
4 May 1819 TGS(1) 5 Fossils from the Chalk ‹of Chatham, Kent›
4 March, 1820 TGS(1) 5 Ammonites from the Upper Chalk ‹of Chatham, Kent›
3 August 1820 TGS(1) 5 Fossils in the flints of the chalk
14 March 1822 TGS (2) 1 Specimens from the neighbourhood of Cuckfield; Fossil Bone from the Ferruginous Sand ‹of Cuckfield [W.Sussex]›
30 March 1822 TGS(2) 1 Specimens from Shetland ‹listed in detail in the Waste Book, 18458–18491›
19 April 1822 TGS(2) 1 Specimens of Rocks from the Orkney Islands ‹listed in detail in the Waste Book, 18599–18623›
2 March 1824 TGS(2) 2 Specimens from Islay, Tiree & Jura [Scotland] (*Description of minerals, 1824, GSL LDGSL27/14*)
19 March 1824 TGS(2) 2 Fossils from the Orkney Islands
Devonian and Cretaceous fossils at BGS.

Vine, George Robert (1825–1893)
Lower Greensand bryozoa presented in 1885 at BGS

Vine, James [Treasurer of GS]
2 March 1821 TGS(1) 5 Gypsum hardened by heat (Vine, 1821)
31 March 1830 TGS(2) 3 Bones of Iguanodon from Brook in the Isle of Wight

Vivian, John Henry (1785–1855)
30 October 1815 TGS(1) 3 Simple minerals
3 November 1815 'MS only' Fullers Earth from the Plastic Clay at Reading [Berkshire]
2 April 1816 TGS(1) 3 Crystallized phosphate of iron from ‹St Agnes,› Cornwall*
* *A specimen of vivianite survives which is attributable to J. H. Vivian. From the Mineralogy Department, records it is from St Agnes, Cornwall and is numbered BM1911,612.*

Waldegrave, Hon. William (1796–1838)
29 June 1824 TGS(2) 2 Impressions of vegetables in coal shale, Radstock [Avon]
Carboniferous fossils at BGS.

Walford, Thomas
3 January 1812 'MS only', specmens from Birdbrook in Essex

Walker and Burges, Messrs
24 August 1837 TGS(2) 5 A polished slab of the fossil tree at Cragleith [Scotland] (Also reported in PGS 2 p. 608, 16 February 1838)

Walker, John Francis (1839–1907) and G.W. Lamplugh, see Lamplugh and Walker

Wallich, Nathaniel (1786–1854)*
4 June 1822 'MS only' ‹Waste Book 20563–20575, entries left blank›
* *A donation of clay from 'Ulverstone' exists in the Department of Mineralogy, BM(NH).*

Walrond, Rev. Thomas, and J. Wiest. See Wiest and Rev. T. Walrond

Walton, William [of Bath]
6 May 1841 TGS(2) 6 Crania from the Great Oolite near Bath [Avon] (Also reported in PGS 3 p. 620, 18 February 1842)
17 February 1843 PGS 4 p. 49 Fossils from the Great Oolite near Bath [Avon]
Jurassic fossils at BGS.

War Department
15 February 1861 GJGS 17 A collection of fossil mammalian bones from Folkstone [Kent]; (through Captain G. H. Gordon)

Warburton, Henry (1784–1858)*
15 March 1811 TGS(1) 1 Fossil teredines from the Isle of Sheppey [Kent] ‹and recent oak, perforated›
1 November 1811 TGS(1) 2 Specimens from Dinmore Hill, in Herefordshire
6 March 1812 'MS only', specimens from Castle Hill near Newhaven [E. Sussex]
19 June 1812 TGS(1) 2 Chalk with fossil palates from Cherry Hinton [Cambridgeshire]; Specimens from Mount Sorrel, in Leicestershire
19 March 1813 TGS(1) 2 Specimens from Rutlandshire and Harrowgate [N. Yorkshire]
23 April 1813 TGS(1) 2 Fossils from the Crag pits, Aldborough in Suffolk
4 June 1813 TGS(1) 2 Specimens from Cambridgeshire*
7 January 1814 TGS(1) 2 Shells in marl from Fifeshire (Warburton, 1817)
31 January 1814 TGS(1) 2 Specimens from the Vale of the Tweed
18 February 1814 TGS(1) 2 Specimens from Scotland; Specimens of English rocks
4 March 1814 TGS(1) 2 Puddingstone from Hemel Hempstead [Hertfordshire]
3 June 1814 TGS(1) 2 Fossils from ‹the Greensand and grey chalk,› Cambridge
12 April 1815 TGS(1) 3 Fossil patellae from Minchin Hampton [Gloucestershire]
15 May 1815 'MS only' Slag from furnace
19 May 1815 TGS(1) 3 Specimens from Essex of fossil bones of the Elephant, Hippopotamus, Elk, Stag, and Buffalo, and of shells from the Crag pits
2 June 1815 TGS(1) 3 Fossil teeth of the Elephant, Hippopotamus and Ox, from Essex and Suffolk
9 August 1815 'MS only' Specimens of a substance forming circular mounds along the edge of a large tract of sea marshes opposite to Mersea Island
3 November 1815 TGS(1) 3 Tufa enclosing land Shells from Stroud in Gloucestershire
5 January 1816 TGS(1) 3 Fossil teeth ‹and tusks› of the Hippopotamus ‹attributed to Warburton and Greenough in the manuscript minutes›
12 January 1816 TGS(1) 3 Clay from Walton cracking into prisms
7 February 1816 TGS(1) 3 Clay from Reading ‹Berkshire›
23 September, 1816 TGS(1) 4 Fossil bones from Walton [on the Naze, Essex,] and fossils from Sheppey [Kent]
24 October, 1816 TGS(1) 4 Specimens of Lyas and its fossils from the ‹Frethern and Westbury› Cliffs on the Severn; Fossils of the Chalk ‹from Northfleet [Kent]›
Also 24 October 1816 'MS only' Limestone from St Asaph and Conway [Gwynedd]
6 November 1816 TGS(1) 4 Specimens of Bath Oolite, from Farleigh Down, near Bath [Avon]
1816 'MS only' Rocks and fossils from Cross, Somersetshire, Portishead and Shotover Hill and Headington [Oxfordshire]; Also fossils from the Farrington sponge bed
6 June 1817 TGS(1) 4 Fossils from the Stonesfield Slate

21 June 1817 TGS(1) 5 Fossil Vertebra and Rib from the Stonesfield Slate ‹attributed to Buckland in the ms minutes›
1 August 1817 TGS(1) 5 Fossil shells found with the bones of the Elephant near Walton [on the Naze, Essex]
6 October 1817 TGS(1) 5 Fossils from the Stonesfield Slate; Various specimens and fossils ‹listed in detail in the Waste Book, 12411–12460›
5 December 1817 TGS(1) 5 Specimens from the mines of Winslow, Cheshire
5 December 1817 'MS only', recent specimens of Venus rugosa
2 January 1818 'MS only, fossil organic remains 16 January 1818 TGS(1) 5 Magnetic Iron Sand from Hunstanton [Norfolk] and antimonial galena ‹from Bredon Hill [Hereford and Worcester]›; Fossils from the Gault at Cambridge
15 May 1818 TGS(1) 5 Fossil Jaw of the Rhinoceros ‹from Donovan's collection: this specimen is figured in Douglas's Antiquity of the Earth [1785]. This fossil was found together with other bones on the 10th June 1773 at Chatham [Waste Book 13812]›
5 June 818 TGS(1) 5 Fossils from Crag Pits ‹Walton, Essex›; Specimens from the neighbourhood of Bristol [Avon]
9 January 1819 TGS(1) 5 Specimens of the Granite veins traversing the schist, Laurren Hill, Scotland
6 June 1819 TGS(1) 5 Resin from the Blue Clay at Hampstead [London]
15 February 1820 TGS(1) 5 Various British geological specimens
10 May 1820 TGS(1) 5 Skeleton of the Proteosaurus found at Lyme Regis; and a head of another
9 June 1821 'MS only' Fossils from the Bagshot Sand
26 January 1822 TGS(2) 1 Fossils from Heddington Clay and Kelloway
Late 1822 'MS only' Specimens and fossils from the Plastic Clay south of Chobham Park [Surrey], ‹listed in detail in the Wastebook, 19595–19614›
26 June 1823 Carbonate of lead from Lord Ribblesdale's Mines, near Malham Tarn, Yorkshire*; Three fossil fish from the Purbeck Beds, Isle of Purbeck [Dorset]
8 February 1825 TGS(2) 2 Fossils from the Gault at Barham Parsonage on the Medway [Kent]
12 October 1826 TGS(2) 2 Sulphate of barytes with crystallized quartz in the interior, from the Fuller's Earth at Nutfield [Surrey]*
14 May 1835 TGS(2) 4 Casts of an occipital bone, and the anterior cervical vertebrae of the Ichthyosaurus lately found near Lyme Regis [Dorset] (Also reported in PGS 2 p. 341 19 February 1836)
16 February 1844 PGS 4 p. 341 Fossils from the Lower Greensand, Sandown Bay and Atherfield, Isle of Wight

* *The specimen of quartz from Nutfield, Reigate, Surrey, is now BM1911,555. Also five Cambridgeshire rocks specimens attributable to Warburton survive, nine specimens from Newhaven, Sussex, and seven specimens from localities in Surrey. The specimen of cerussite reported as given to the Geological Society on 26 June 1823 appears to be BM1911,586–7. All are now in the Department of Mineralogy, BM(NH).*
There is a large collection of fossils at BGS.

Warburton, H., and M. Brochant de Villiers. See Brochant de Villiers and Warburton

Warburton, H., the Earl of Enniskillen, R. I. Murchison, Sir Philip Egerton, C. Stokes and W. J. Broderip

20 February 1846 QJGS 2 Gigantic head of Ichthyosaurus, the remaining portion of a specimen already in the possession of the Society*

* *This specimen, purchased at the sale of the collection of James Johnson (c.1764–1844), is still held by the Society at Burlington House. It is now joined to the piece given by H. T. De la Beche on 20 April 1827.*

Ward, Rev. John (d.1881)
31 March 1830 TGS(2) 3 Specimens of Rostellaria macroptera (Also reported in PGS 1 p. 260, 18 February 1831)
Tertiary fossils at BGS.

Warne, Miss Elizabeth
19 January 1833 TGS(2) 5 A chalcedonic flint from Ridgeway between Dorchester and Weymouth [Dorset], and recent corals and serpulae (Also reported in PGS 1 p. 427, 15 February 1833. *Letter, E. Warne to W. Lonsdale, n.d., GSL Mus1/180)*
7 February 1833 TGS(2) 3 and PGS 2 p. 28 Fossils from Weymouth [Dorset] (*Letter, E. Warne to W. Lonsdale, n.d., GSL Mus1/167)*
11 March 1833 TGS(2) 3 and PGS 2 p. 28 Recent shells from the English coast

Warren, Mr
April 1841 TGS(2) 6 Specimen of Cyprina morrisii, from the Cemetery, Lower Norwood [London] (Also reported in PGS 3 p. 620, 18 February 1842)
Tertiary fossils at BGS.

Waters, Arthur William (1846/7–1929)
15 February 1878 QJGS 34 Specimens of lignites

Watkins, Rev. Charles Frederick (1793–1873)
25 February 1832 TGS(2) 3 Chalk flints from the neighbourhood of Salisbury [Wiltshire] (Also reported in TGS(2) 3 on 6 June 1832 and PGS 1 p. 426, 15 February 1833. *Letter, C. F. Watkins to W. Lonsdale, 11 February 1832, Mus1/186)*
9 January 1839 TGS(2) 5 Specimens of chalcedonic flints from Wiltshire (Also reported in PGS 3 p. 46, 15 February 1839)
27 March 1839 TGS(2) 5 Section of an Alcyonite in flint (Also reported in PGS 3 p. 194, 21 February 1840)
Cretaceous fossils at BGS.

Wavell, Dr William (d.1829)
2 May 1823 TGS(2) 1 Carbonate of soda found in cavities of the stone of which the tower of Stoke Church, Hartland [Devon], is built; Granite from Lundy island; Granite from Dartmoor; Old Red Sandstone with shells, Bristol [Avon]; Wavellite*; Substances found near Biddeford [Devon], and used as a black pigment (*Letter, W. Wavell to M. Faraday, n.d., BM(NH) M Mss*)
* *The specimen of 'wavellite' survives in the Department of Mineralogy, BM(NH), numbered BM1911,608.*

Way, Dr
21 February 1845 PGS 4 p. 534 Nautilus from the London Clay

Weaver, Thomas (1773–1855)
14 December 1821 'MS only', specimens from the neighbourhood of Tortworth, Gloucestershire
16 November 1821 TGS(2) 1 Specimens from the district of Tortworth, Gloucestershire* (*Index to the list of minerals, GSL Mus1/24–26. See also Weaver, 1824)*
8 June 1831 TGS(2) 3 Specimens from the south of Ireland (Weaver, 1837)* (Also reported in PGS 1 p. 351, 17 February 1832 *Letters, 31 May & 14 June 1831, GSL Mus 2/104–5)*
22 December 1834 TGS(2) 4 Specimens from the coal of the south of Ireland* (Also reported in PGS 2 p. 131, 20 February 1835)
31 August 1841 TGS(2) 6 A collection of Silurian fossils from Pyrton and Tortworth, Gloucestershire (Also reported in PGS 3 p. 621, 18 February 1842, and listed at PGS 3 p. 560)

17 February 1843 PGS 4 p. 49 Ammonites subvlaevis and callovicensis from the Kelloway Rock of Christian Malford, Wilts

* *Five rock specimens from Tortworth, five rocks from the Irish Coal Measures and sixteen rock specimens from Waterford corresponding to these donations to the Geological Society of London Museum survive in the Department of Mineralogy, BM(NH).*
Silurian, Carboniferous and Jurassic fossils at BGS.

Webster, Thomas (1772–1844)

5 June 1812 TGS(1) 2 Alcyonia from the Isle of Wight (Webster, 1814. *List of specimens, n.d., GSL Mus1/11)*

19 November 1813 TGS(1) 2 Specimens and fossils illustrative of Mr.Webster's Paper on the Strata above the Chalk* (Webster, 1814)

17 December 1813 TGS(1) 2 Specimens of strata and organic remains illustrative of his paper* (Webster, 1814)

7 January 1814 TGS(1) 2 Flints from the London gravel

9 November 1820 TGS(1) 5 Fossil vegetable from the freshwater formation, Isle of Wight

5 November 1824 TGS(2) 2 Specimens from the beds below the Chalk in the Isle of Wight

* *Forty three apparently unreported rock specimens from Purbeck/Portland illustrating a paper by Webster (1826) appear to survive. Also, a specimen illustrating a paper on English Cretaceous/Tertiary rocks (Webster, 1814). There are some apparently unrecorded mineral donations; these are of specimens of calcite from Durham, now BM1911,574; aragonite from Cumberland (BM1911,584–5); Two specimens of chalcopyrite (BM1911, 550 from Llandudno, north Wales) and BM1911,551–2 from Leicestershire, England. There is also an elaterite-bearing siderite nodule (BM1911,542) from Yorkshire. All these collections are now in the Department of Mineralogy, BM(NH).*
There are Cretaceous, Tertiary and Quaternary fossils at BGS.

Westminster, The Very Rev. Dean of, see Buckland, W.

Weston, Charles Henry (1802/3–1874)

18 Feburary 1848 QJGS 4 Series of fossils from the Oxford Clay in the Ridgway cutting [Dorset] (Weston, 1848)

Jurassic fossils at BGS.

Wetherell, I. W.

Upper Chalk fossils from Gravesend, Kent, at BGS.

Wetherell, Nathaniel Thomas (1800–1875)

8 June 1832 TGS(2) 3 A collection of fossils found in the London Clay at Highgate Archway [London]* (Also reported in PGS 1 p. 427, 15 February 1833 with the donation below. *Letter, 7 June 1832, GSL Mus1/44)* (Wetherell, 1832*a*)

31 December 1833 TGS(2) 3 Specimens of Ophiura from the London Clay at Child's Hill near Hampstead [London] (Also reported in PGS 1 p. 427, 15 February 1833) (Wetherell, 1832*b*)

1 May 1834 TGS(2) 4 Cast of a palatal bone from the Chalk (Also reported in PGS 2 p. 130, 20 February 1835, see also below)

20 July 1834 TGS(2) 4 Specimens from the London Clay at Hornsey [London] (*Letter, 16 July 1834, GSL LR1/78)*

12 November 1834 TGS(2) 4 Specimens from the loam of Muswell Hill, and additional specimens from a well at Hornsey [London] (Also reported in PGS 2 p. 130, 20 February 1935. *Letter, 8 November 1834, GSL LR1/106)*

1 May 1836 TGS(2) 5 Specimens from the London Clay, near Chalk Farm [London]*

(Also reported in PGS 2 p. 464, 17 February 1837. *Letter, N. T. Wetherell to W. Lonsdale, 8 May 1836, GSL Mus1/144)*
15 April 1839 TGS(2) 5 Fossils from the London Clay (Also reported in PGS 3 p. 195, 21 February 1840. *Letter, N. T. Wetherell to W. Lonsdale, 16 April 1839, GSL Mus2/35)*
21 February 1840 PGS 3 p. 195 Specimens from Muswell Hill, and the London Clay near Chalk Farm* (*Letter, N. T. Wetherell to W. Lonsdale, 31 October 1839, GSL Mus2/39)*
6 May 1841 TGS(2) 6 Specimens from the gravel of Cold Fall Wood, near Muswell Hill [London] (Also reported in PGS 3 p. 621, 18 February 1842)
15 February 1850 QJGS 6 Specimens from the London Clay at Chalk Farm, and from the gravel pits of Muswell Hill [London] (*Letter, N. T. Wetherell to J. Nicol, 12 July 1849, GSL LDGSL 30*)
17 Feburary 1854 QJGS 10 Suite of fossils from the London Clay
19 February 1858 QJGS 14 A skull of Bos longifrons from Waltham [Essex], and some fossils from the London Clay
18 February 1859 QJGS 15 Nodules, etc., from the London Clay*
19 February 1864 QJGS 20 Collection of bones of the horse, ox, deer, etc., from Walthamstow [London]

* *Two clay specimens from Highgate and eleven rock specimens from Chalk Farm are extant. There is also a specimen labelled 'Septaria ...' perhaps connected with the donation noted in QJGS 15. All are now in the Department of Mineralogy, BM(NH). Tertiary and Quaternary fossils are held at BGS.*

Wheeler, Charles
Chalk and Lower Greensand fossils from the Isle of Wight at BGS.

Whitaker, William (1836–1925)
Pleistocene erratics from Muswell Hill, London, and Oldhaven Beds fossils from Sundridge, Kent, at BGS.

Whitby Stone Company
30 August 1837 TGS(2) 5 Specimens of the Whitby and White-house building-stone, and of the Whitby porcelain earth, in contact with a Whinstone dyke (Also reported in PGS 2 p. 608, 16 February 1838) (*Letter, H. Belcher, 16 September 1837, GSL Mus2/9*)

White, Henry Campbell (1815/6–1875)
16 January 1824 TGS(2) 2 Chalcedony in chalk flint, from the neighbourhood of Hemel Hempstead [Hertfordshire] (Also reported in TGS(2) 2 on 8 April 1824)
11 March 1824 TGS(2) 2 Orthoceratite in limestone
16 March 1831 TGS(2) 3 A Septarium from the gravel at Baldock, in Hertfordshire
25 February 1832 TGS(2) 3 Chalk flints from Hemel Hempstead [Hertfordshire] (Also reported in PGS 1 p. 426, 15 February 1833)
12 June 1833 TGS(2) 3 Chalcedonic flints from Hemel Hempstead [Hertfordshire] (Also reported in PGS 2 p. 29, 21 February 1834)
17 November 1833 TGS(2) 4 Fossil wood perforated by Teredina personata
27 November 1835 TGS(2) 5 Specimens from the chalk of Hemel Hempstead [Hertfordshire]
27 September 1836 TGS(2) 5 Fossils from the chalk near Hemel Hempstead [Hertfordshire]
17 February 1837 PGS 2 p. 464 Specimens from the Chalk of various parts of England
1 June 1842 TGS(2) 6 Geological specimens from Jersey
16 February 1844 PGS 4 p. 343 Specimens of chalcedony and fossils from the Chalk at Hemel Hempstead, Herts
Cretaceous fossils at BGS.

White, John, through H. C. White
21 March 1828 TGS(2) 2 Tooth of the mammoth, from the Kensington Canal, near the Hammersmith road [London]

White, Miss [of Swanscombe]
21 February 1845 PGS 4 p. 534 Crustaceans and Nautili from the London Clay, Isle of Sheppey [Kent]

White, Robert (b.1814) [of Cowes, FGS]
16 February 1844 PGS 4 p. 343 Remains of fish from the London Clay of Sheppey, and mammalian teeth and bones from the Pleistocene deposit at Erith, Kent
19 February 1858 QJGS 14 Series of fossils from the Tertiaries, Chalk and Wealden of the Isle of Wight, in mahogany glazed case
17 February 1860 QJGS 16 Lepidotus teeth, &c., from the Wealden at Brook Point [Isle of Wight]
Cretaceous fossils at BGS.

Whitley, Nicholas
20 February 1863 QJGS 19 Flint-flakes from Croyde Bay, Devon, and from the South Downs (Whitley, 1862)

Whitham, Henry Thomas Maire (1779–1844)
12 August 1831 TGS(2) 3 Four casts of impressions in red sandstone (Also reported in PGS 1 p. 352, 17 February 1832)

Wiest, Johannes (1817–1883) and Rev. T. Walrond
21 February 1855 QJGS 11 Fossils from the green-grained chalk of Chardstock [Devon]
Triassic and Cretaceous fossils at BGS.

Wiggins, John (d.1863)
March 1842 TGS(2) 6 A group of three basaltic columns from the Giants' Causeway (Also reported in PGS 4 p. 49, 17 February 1843)

Wilkinson, James
3 March 1809 TGS(1) 1 A fossil elephant's tusk, tooth and bone found in a gravel pit near Bath (*Letter, 30 January 1809, GSL Mus 1/162)*
7 June 1816 TGS(1) 3 Fossil bones from ‹Weston, near› Bath (*Letter, J. Wilkinson, 21 March 1816, GSL Mus1/189)*

Wilks, Mark (?1760–1831)
21 December 1827 TGS(2) 2 Ammonite from the Isle of Man

Williams, Rev David (1792–1850)
Specimens from the raised beach at Baggy Point, Devon, at BGS (cf. Williams, 1837)

Williams, Thomas
23 June 1837 TGS(2) 5 Coal shale with vegetable impressions, from the coal-measures at Rhymney, near Merthyr Tydvyl [Mid Glamorgan] (Also reported in PGS 2 p. 608, 16 February 1838. *Letter, T. Williams to W. Lonsdale, 15 October 1837, GSL Mus2/13)*

Williams, W
25 April 1834 TGS(2) 4 Fossils of the Grauwacke Series of Shropshire (Also reported in PGS 2 p. 130, 20 February 1835)

Willimott, John (fl.1829–1845)
10 November 1830 TGS(2) 3 Fossils from the Isle of Wight
3 February 1835 TGS(2) 4 Flexible magnesian limestone from Sunderland, and Fossils

from the Lower Greensand, Kent (Also reported in PGS 2 p. 341, 19 February 1836)

15 August 1832 'MS only', fossils from the Greensand etc of England

Cretaceous and Tertiary fossils at BGS.

Winch, Nathaniel John (1768–1838)

6 May 1808 TGS(1) 1 Specimens from Coal-mine at Coley-Hill near Newcastle-Upon-Tyne* (Winch, 1817)

5 November 1817 TGS(1) 5 Specimens of English Strata

1 June 1838 TGS(21) 5 The collection of minerals, fossils, and geological specimens belonging to the late Nathaniel John Winch (Also reported in PGS 3 p. 45, 15 February 1839. *Letters of P. G. Ellison, 5 June and 28 July 1838, GSL Mus LR3/312, and LR4/11; also C. Dodd, 6 & 14 November 1838, GSL LR4/50 & 58)*

* *Five specimens of volcanic rocks from Coley Hill, attributable to Winch, are extant in the Department of Mineralogy, BM(NH).*

There are Permian, Carboniferous, Jurassic and Cretaceous fossils at BGS.

Wise, Edward (1818–1865)

16 February 1844 PGS 4 p. 342 Fossils of the Lower Greensand and bones of the Iguanodon from the Hastings Sand, Isle of Wight

Cretaceous and Tertiary fossils at BGS.

Wollaston, William Hyde (1766–1828)

15 November 1816 TGS(1) 4 Kimmeridge coal money*

12 June 1822 TGS(2) 1 Native magnesia from Unst in Shetland

19 April 1823 TGS(2) 1 Fossil Turrilite from Beachy Head [E. Sussex]

* *Two circular clay specimens corresponding to this donation are exant in the Department of Mineralogy, BM(NH).*

Wood, Edward (1808–1877)

19 February 1858 QJGS 14 Two specimens of Woodocrinus from Yorkshire

Carboniferous fossils at BGS.

Wood, James George (1888–1928)

17 February 1899 QJGS 55 Specimen of sound oak found in blue clay, 15 feet below low-water mark, in sinking the cylinders for Chepstow Railway bridge [Gwent]

Wood, Rev. John

3 November 1809 TGS(1) 1 Specimens of the limestone from the quarries of Crich, Derbyshire

Wood, Searles Valentine (1798–1880)*

15 February 1839 PGS 3 p. 46 A series of fossils from the Crag

18 June 1841 TGS(2) 6 A series of Freshwater and Land Shells, from the newer Pliocene deposit, Stutton, Suffolk (Also reported in PGS 3 p. 621, 18 February 1842)

16 February 1844 PGS 4 p. 343 Fossil seeds from the Lower Freshwater deposit at Hordwell [Hampshire]

19 February 1858 QJGS 14 Cast of a bone from the Crag, and a rock-specimen from the Harwich Well [Essex]

18 February 1859 QJGS 15 Extraneous fossils from the Crag (Wood, 1859)

* *Specimens clearly connected with an unrecorded donation of erratics of Yorkshire Chalk and glacial clay from Pilgrims Hatch, near Brentwood, Essex, are now in the Department of Mineralogy, BM(NH), and appear to illustrate a paper by Wood (1868).*

Tertiary and Quaternary fossils are held at BGS.

Woods, Joseph (1776–1864)
15 April 1816 TGS(1) 3 Fragments of belemnites from the chalk pits at Norwich and pieces of gravel from Hertford
20 May 1825 TGS(2) 2 Specimens from the neighbourhood of Beer in Devonshire

Woodward, Bernard Barham (1853–1930)
Lower Greensand fossils from Maidstone, Kent, at BGS

Woodward, Henry (1832–1891)
14 December 1875 'MS only', casts of wing of Gryllacris, from Coal Measures of Coalbrookdale and cast of Lithomantis carbonarius from the Coal Measures of Staffordshire or Scotland

Woodward, Samuel (1790–1838)
15 January 1828 TGS(2) 2 Bones from the Bramerton Crag; and Terebratulae in flint, from Norwich
8 December 1830 TGS(2) 3 and PGS 1 p. 261 Fossils from the Crag (*Letter, S. Woodward to W. Lonsdale, 6 December 1830, GSL Mus1/73)*
4 April 1832 TGS(2) 3 Three casts of Asterias from the chalk (Also reported in PGS 1 p. 427, 15 February 1833. *Letters, S. Woodward to W. Lonsdale 31 March 1832, S. Woodward to R. I. Murchison, 31 March 1832, GSL Mus1/56, 147)*
6 January 1836 TGS(2) 5 Specimen of earthy phosphate of iron from Boyland, near Long Stratton, Norfolk (Also reported in PGS 2 p. 342 19 February 1836)
Pleistocene fossils at BGS.

Woolven, Henry [of Ashton under Lyne]
20 February 1852 QJGS 8 Specimens of coal plants from Ashton-under-Lyne [Staffordshire]
Carboniferous fossils at BGS.

Worthington, Charles (d.1846)
17 March 1820 TGS(1) 5 Specimens from Devonshire*
10 May 1820 TGS(1) 5 Micaceous Iron Ore from Lustleigh, Devon; Portion of a silicified tree from the Greensand at Sidmouth [Devon]
* *Four rock specimens corresponding to this donation to the Geological Society Museum are now in the Department of Mineralogy, BM(NH).*

Wrench, Robert.
30 September 1833 TGS(2) 4 Specimens from the Submarine Forest near Hastings [E. Sussex] (Also reported in PGS 2 p. 29, 21 February 1834)

Wrey, William Long (d.1883)
19 February 1847 QJGS 3 Specimens of Unio from the iron mines of Caermarthanshire
Carboniferous fossils at BGS.

Wright, E. A.
20 February 1846 QJGS 2 Calamites pachyderma and other coal-plants from Glodweick Colliery, Oldham [Lancashire]

Wright, John
June 1836 TGS(2) 5 Specimens from the Chalk at Buxton, Norwich (Also reported in PGS 2 p. 464, 17 February 1837)
19 February 1841 PGS 3 p. 373 An ammonite from Tasburgh, near Norwich

Wright, John Robison
1 May 1832 TGS(2) 3 Fossils from Buckinghamshire and Oxfordshire
Jurassic fossils at BGS.

Wright, J. R. and H. Maclauchlan
7 July 1834 TGS(2) 4 Fossils from the neighbourhood of St Ives [Cambridgeshire] (Also reported in PGS 2 p. 130, 20 February 1835. *Letter, 2 July 1834, GSL Mus1/67–68)*

Wright, Matthew
11 May 1822 TGS(2) 1 Specimens from Wolmer Forest
4 June 1822 TGS(2) 1 Specimens of ferruginous sand &c. from Hampstead-Heath [London] (*List of specimens, GSL Mus1/28)*
20 February 1835 PGS 2 p. 130 Cast of an Ophiura from the Lias, on the banks of the Severn*
* *Three fossiliferous rocks from the Rhaetic, attributable to a 'Dr Wright', survive in the Department of Mineralogy, BM(NH). They are probably connected with the material noted here.*

Wright, Dr Thomas (1809–1906)
Liassic fossils from Marle Hill, Gloucestershire, at BGS

Wynne, Arthur Beaver (1835–1906)
Recent molluscs from County Cork at BGS

Yale, R.
Fossils from the Lower Lias of Westbury Gardens Cliff, Gloucestershire, at BGS

Yates, Rev. James (1789–1871)*
6 January 1820 TGS(1) 5 Specimens of a variety of Limestone from Staffordshire called Curl, in illustration of a paper on the subject (Yates, 1821)
12 June 1822 TGS(2) 1 Specimens from the quartz rock of Bromsgrove Lickie [Hereford and Worcester] (Yates, 1826)
26 June 1823 TGS(2) 1 Calciferous sandstone from Hollington with the impressions of univalves and bivalves
28 January 1825 TGS(2) 2 Specimens from the gravel on the Red Marl in the midland counties (*Catalogue of specimens, GSL Mus2/2)*
28 December 1830 TGS(2) 3 Vegetable remains from the South Staffordshire Coal-Field and a collection of geological specimens (Also reported in PGS 1 p. 261 18 February 1831)
28 September 1831 TGS(2) 3 and PGS 1 p. 352 Rock specimens from Lancashire and minerals from Cornwall
10 March 1836 TGS(2) 5 Petrified wood with hazel nuts, from a submarine forest and bog on the Irish coast, described in the [1st series] Geological Transactions, vol. 4. p. 443 (Macdonnell, 1817) (Also reported in PGS 2 p. 463)
14 December 1836 TGS(2) 5 Specimens from the New Red Sandstone and conglomerate at Allesley, Warwickshire* (Also reported in PGS 2 p. 464, 17 February 1837)
23 February 1837 TGS(2) 5 Specimens from Cornwall (Also reported in PGS 2 p. 607, 16 February 1838)
18 February 1848 QJGS 4 Impressions in sandstone of the Coal Formation, from Hemsworth near Sheffield [S. Yorkshire]
* *Three specimens of New Red Sandstone rocks from Allesley near Coventry are housed in the Department of Mineralogy, BM(NH). Also extant are two red sandstones from Fillongley and two from Tuttle Hill. There are also three rock specimens and some pebbles from Shropshire, perhaps connected with Yates's (1827) paper, and two conglomerates. It is not known when the specimen of prehnite attributed to Yates, now BM1911,604, was given to the Geological Society.*
There are Silurian and Carboniferous fossils at BGS.

Yates, James and Rev. Buckland. See Buckland & Yates

Yorke, Captain Charles Philip (1799–1873) [R.N.]
4 June 1834 TGS(2) 4 Carbonate of strontia with calcareous spar and brown iron ore, from the Forest of Dean [Gloucestershire] (Also reported in PGS 2 p. 130, 20 February 1835)

Young, James Forbes (1796–1860)
19 February 1858 QJGS 14 Granitic boulders &c from the Chalk of Croydon [Surrey]

Young, Professor John (1835–1902) and Young, John (1823–1900)
9 February 1875 QJGS 31 Mounted specimens of Palaeocoryne and Carboniferous Polyzoa (Young & Young, 1874)

Young, William [MGS]
3 May 1811 TGS(1) 1 Specimens from High-Cliff in Hampshire

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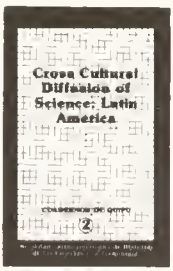

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CONTENTS

1 John Frederick Marshall and the British Mosquitoes
KEITH & SUSAN SNOW

51 A short history of the Museum of the Geological Society of London, 1807–1911, wi
a catalogue of the British and Irish accessions, and notes on surviving collections.
D. T. MOORE, J. C. THACKRAY & D. L. MORGAN

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PRESENTE
ZOOLOGY

Carcinology in The Natural History Museum, London; the brachyuran crab collections and their curation from 1813–1904 (Leach to Calman)

R.W. INGLE

Department of Zoology, The Natural History Museum, London

CONTENTS

Introduction 161
The Early Years: Shaw to Leach, (1806–1822) 163
The Mid-Years: Samouelle to White (1822–1863) 165
The Later Years: A. G. Butler to W. T. Calman (1863–1904) 173
Registers and Indexes 184
Concluding Remarks 186
Endnotes 186
Acknowledgements 198
References 198
Appendix 208

ABSTRACT. The nucleus of zoological research collections in the Natural History Museum, London, was formed during the nineteenth and early part of this century. This study appraises the crustacean collections containing brachyuran crabs acquired during the period between 1813 and 1904, when the crustaceans were under the care of various successive staff members, commencing with William Elford Leach and terminating with William Thomas Calman. During that period the collections were enriched from many sources. In particular, via Admiralty vessels, by professional and amateur naturalists and through exchanges with other institutions. The extant brachyuran crab material of the historically important *Leach* and *Montagu* Collections is listed. Circumstances relating to the acquisition of other major collections of the period are discussed and brief accounts given of the various curators associated with these collections.

INTRODUCTION

Curators of natural history collections are often called upon to provide details of material in their care. These request may be for information about circumstances in which a particular collection was acquired, the routes of exploring vessels and /or the sampling

methods employed, or perhaps biographical profiles of collectors or naturalists that accompanied expeditions. Overall knowledge of these aspects is usually accumulated gradually over the years and often through requests from visitors or correspondents. Curators rarely find the time to publish compiled information of this type for either parts or of whole collections in their charge.

Yet such reviews can be of considerable value. Not only as a means of passing knowledge to successors, but can reveal insights into circumstances affecting the growth and care of collections, particularly when these may have been influenced by prevailing political or economic policies, museum conditions or the quality of past curators.

This present contribution traces the growth of the collections in the Natural History Museum, London, containing brachyuran crabs and from the time that the crustaceans were in the care of William Elford Leach (1790–1836), through his successors, until the arrival of William Thomas Calman (1871–1952). During this period of almost one hundred years, curatorial methods were established and some of the most important collections acquired, the study of which established the foundations of much of our present day crab taxonomy.

Throughout this period the crustacean collections were enriched from many sources. As will be shown the earliest and most important were the donations by William Elford Leach of much of his personal collection. Later, from the mid-nineteenth century onwards, the Museum acquired considerable collections from the Admiralty made by personnel serving on the many vessels engaged in surveying temperate and tropical waters. Valuable collections were also obtained through exchanges with other institutions or museums and by purchases or donations from amateur naturalists often serving abroad in a civilian or military capacity.

General aspects of the natural history collections of the British Museum and the later British Museum (Natural History) have been documented by Miller (1973), Günther (1975) and Stearn (1981). The development of the zoological collections was summarised in *The History of the Collections* . . . (see British Museum, 1906; Gunther, 1911, 1912). These works provide an excellent starting point for enquiries or research into curatorial history, but their broad coverage imposed restrictions on the amount of information given about specific collections and the individuals responsible for their curation. By comparison, this present contribution is confined essentially to an historical review of only the crab material contained in the present Crustacea Collection of The Natural History Museum although much of this information will apply to the other collections in the Zoology Department. The early history of the crustacean collections is briefly reviewed and circumstances that affected the working practices of two contrasting curators, George Samouelle (?–1846) and later, Edward John Miers (1851–1930) are related in some detail. As far as is practical historical aspects are dealt with chronologically and many events not directly concerned with the main narrative are relegated to *Endnotes*.

The following abbreviations are used: BM=British Museum; BMNH=British Museum (Natural History); NHM=Natural History Museum, London, (in October 1989 the British Museum (Natural History) was given a new corporate identity with the name *The Natural History Museum*); B.M.P=British Museum Papers (archival-British Museum); *Entom. Mem.*=Entomological Memoranda (1821–1840 in 3 vols; contains *inter alia* George Samouelle's reports to the Trustees etc) and in the Entomology Library Archives. Quotation are also given from: the Trustees Minutes, Letters and Reports, Official Documents, Keeper's Correspondence, the letters of E. J. Miers and the Report Book of J. C. Children. All are in The Natural History Museum Archives.

> . . . They had their times, and we can say, they were . . . Ben Jonson. 1631. *The New Inne, Act II, sc.5* (Edition Thomas Harper for Thomas Alchorne. London)

THE EARLY YEARS: SHAW TO LEACH, (1806–1822)

Dr. Shaw's cremations

When an act of Parliament received Royal Assent on 7 June 1753 for the establishment of the British Museum and thus acquired for the Nation the extensive collections of Sir Hans Sloane, among the numerous contents was listed 'Crustacea, or Crabs, etc., 363' (Stearn, 1981: 14). By 1806, when George Shaw (1751–1813) became Keeper of the Department of Natural History and Modern Curiosities of the British Museum at Montagu House, much of the zoological material of Sloane's collection was in an advanced stage of decomposition. This deterioration undoubtedly began during the period when James Empson (?–1765) who, until his death in 1765, had diligently curated Sloane's collections. Thus Shaw inherited a problem that was to harass his successors throughout that century and into the next, and specimens of this nucleus natural history collection that had been reduced to a valueless condition were therefore, destroyed. Sanction for this was required from the Trustees and their *Minutes* clearly reveal their concern. In 1808, for example, they directed:

> That Sir Joseph Banks be requested to consider Dr. Shaw's Report, respecting the Articles on the Basement Story, as read this day and to give such directions as may appear to him proper relating to any of the articles suggested by Dr.Shaw as fit for destruction, or to be disposed of; and that no articles be removed without the approbation of Sir Joseph Banks . . . [*Trustees Minutes*, 9 July 1808: NHM Archives].

That permission was not always sought or obtained is clear from the directives issued by the Trustees from time to time reminding Keepers that approval for such disposals was necessary (Gunther, 1975: 60), but no doubt they must have been aware that Shaw was finding it necessary to get rid of unsuitable specimens on a regular basis.

In 1808 Shaw was instructed to reorganise the collections and to select items of interest for display in the central saloon of Montagu House. The remainder of the natural history collection was consigned to basement rooms. The long gallery over the King's Library and rooms in the North Wing, above the Department of Printed Books, were allotted to these display specimens. In 1809, in Gallery room X, there was exhibited:

> . . . crustaceous animals; the West-Indian Land Crab; lobsters; various spider-crabs; soldier-crabs . . . a fine specimen of a large land crab (*Cancer latro* . . .) (British Museum, 1835: 41, 43)

The only spirit preserved specimens on display appear to have been quadrupeds. The majority, if not all, were probably Sloane specimens. In a footnote on page iii of the earlier 1809 *Synopsis of the contents of the British Museum*, the Sloane crustaceans were purported to have been represented by 1436 specimens, a figure greatly in excess of that given in 1753! Because additional storage space was required by the Library in 1809, anatomical specimens and duplicates (that no doubt included crustaceans) then occupying one of the basement rooms, were sold to the Royal College of Surgeons of England; they were offered back to the Museum forty years later (Gunther, 1975: 51).

In 1813 William Elford Leach (**1**) was appointed to assist Charles Konig (1774–1851) who had succeeded Shaw as Keeper of the Department during the same year. Described

by Swainson (1840: 239) as of 'slight form, and delicate habit'. Leach nevertheless, possessed the abundance of energy and brilliance that was required for the unenviable task of reorganising the natural history collection on a more scientific basis. This he appeared to do with great determination while at the same time developing particular interests in arthropods and molluses. However, some years later Konig, in giving evidence to the *Select Committee on the British Museum* stated that he found it necessary to re-arrange:

> . . . the British birds, for instance, and did away with Dr. Leach's names, which were complained of as new-fangled. He had his own terminology and nomenclature, and great complaints were excited by his introducing that instead of the old nomenclature which I superadded to to his own . . . (British Museum, 1835*a*: 186)

Unfortunately Leach was not to supervise the moving of these collections into the new British Museum that was being built just to the north of Montagu House and completed in 1830. Similar to his predecessor, Leach also had found it necessary to dispose of valueless specimens as indicated by his occasional requests to the Trustees:

> That Dr Leach be permitted to destroy the soft Corallines mentioned in his Report . . . [*Trustees Minutes*, 11 March 1815: NHM Archives]

This progressive disposal of specimens throughout the first two decades of the nineteenth century and later has, with one exception (see p. 220) effectively removed any evidence of Sloane crustaceans from the collections. Although some of the Sloane specimens were preserved '*in spiritu vini* in bottles' (Kalm, 1892: 97), it is likely that all the crustaceans were stored in a dry state and, similar to the insect collections, were vulnerable to the ravages of beetle and moth larvae (Dermestidae and Tinaeidae). Thus, in his statements to the *Select Committee* and in answer to the question:

> . . . Is the entomological collection, which was left by Sir Hans Sloane, in a perfect state at present . . .

Charles Konig found it necessary to answer:

> There is hardly anything remaining of it.

And to the question:

> . . . How does it happen that the collection has been lost . . .

Konig replied:

> . . . When I came to the Museum most of those objects were in an advanced state of decomposition, and they were buried and committed to the flames one after another; Dr Shaw had a burning every year; he called them his cremations . . .

And to the question:

> . . . Is there one single insect remaining of the 5,394, which were presented by Sir Hans Sloane? . . .

Konig replied:

> . . . I should think not.

Konig also remarked:

> . . . that some persons in the neighbourhood complained, and threatened with an action, because they thought the moths were introduced into their houses by the cremations in the Museum garden . . . (British Museum, 1835*a*: 197)

Also, the practice of 'camphoring' arthropod collections, that afforded some protection against infestations, does not seem to have been introduced into the Museum until about 1820. By comparison, of other invertebrate groups, shell collections have survived much better. Over 400 Sloane specimens were rediscovered by Wilkins (1953) among the BMNH shell collections. It is perhaps not suprising therefore, that in 1847 when Adam White published his catalogue of the entire crustacean collection he was able to list only one species of brachyuran crab from the Sloane collection (see p. 220).

The nucleus of the collection

The origins of the present Crustacea Collection therefore, can be said to date from the time when the British Museum acquired the personal collections of William Elford Leach and those resulting from his communications with other naturalists. The specimens cited in his classic *Malacostraca Podophthalmata Britanniae* (**2**) were probably the donation reported at the Trustees Meeting of 12 November 1814 (**3**). Leach's descriptive accounts of specimens in his personal or the British Museum collections are also contained in three other important publications by him: (i) the Crustaceology part of Brewster's *The Edinburgh Encyclopedia* (1814), (ii) *The Zoological Miscellany* (1814*a*, 1815*a*, 1817*a*), published in parts (**4** & **5**), and (iii) the supplement to the fourth to sixth Editions of *The Encyclopedia Britannica* (1816).

J. E. Gray (1880–1875), Keeper of the Zoological Branch of the Department of Natural History and Modern Curiosities, had no doubts about the importance of Leach's contributions to the Museum's collections. He remarked, in the Introduction to White's *List of the Crustacea . . . in . . . the British Museum*:

> . . . The specimens collected by my friend and predecessor Dr. W. E. Leach, may be considered as the nucleus of this collection, and great attention has been paid to the published and manuscript names which he had attached to the specimens then in the collection . . . (White, 1847).

The single Sloane specimen, the 'Leach Collection' and the specimens purchased from Leach's colleague Col. George Montagu (**6**), the undocumented specimens attributed to the 'Banks' Collection (see pp. 208–210, 214) and the few crustaceans of the Thomas Pennant (**8**) collection, the latter acquired by the Museum almost a century later, represent the oldest malacostracan specimens in The Natural History Museum Collections. The extant brachyurans of these four historically important collections are listed in the Appendix.

THE MID-YEARS: SAMOUELLE TO WHITE (1822–1863)

The Insect Room

Leach retired prematurely in 1822 and John George Children (1777–1852) was transferred from his post as Librarian in the Department of Antiquities to fill the vacated position of Assistant Keeper in the Department of Natural History. In matters relating to the arthropod collections he was assisted by George Samouelle (**9**) who had been appointed in 1821 as clerk and assistant to the Department of Natural History and Modern Curiosities headed by Konig. During the following decade much of the natural history collections would be transferred into the new British Museum. In 1829 the

zoological specimens destined for display were moved into the upper gallery of the recently completed East Wing and the remaining specimens relocated in the northern part of the building as these rooms were successively completed. The move was a lengthy one and still in progress as late as 1842 (Miller, 1973: 232). But by 1840, the year that J. E. Gray was appointed Keeper of the Zoological Branch (so designated in 1838) of the Department of Natural History, all the arthropod collections appear to have been transferred from Montagu House and the majority into one of the rooms allotted to the Department. This was referred to as the 'Insect Room' situated adjacent to the Keeper's office in a semi-basement. Much later Sclater (1877) gave a derisory account of the prevailing conditions:

> . . . The remaining naturalists are herded together in one apartment commonly called the insect room, along with artists messengers and servants. Into this room is shown everybody who has business in the zoological department of the British Museum whether he comes as a student to examine the collections, or as a tradesman to settle an account . . .

The bulk of the arthropod collections were therefore, not on display in the galleries but visitors were informed that:

> . . . The principal collection of Crustacea, Spiders and Insects, are preserved in proper cabinets in a separate room, and may be seen by persons who wish to consult them for the purpose of study, by application to the officer to whom their care is entrusted, every Tuesday and Thursday . . . (British Museum, 1835: 31)

The Reports by Samouelle

The 1830s to 1840s were years of transition for the arthropod collections. A considerable amount of rearrangement and redocumentation of specimens appears to have been done concurrent with their relocation and it may have been about this period when many of Leach's original labels were replaced to update the nomenclature of collections (British Museum, 1835*a*: 279). That these tasks fell to Samouelle is evident from the reports that he was required to regularly submit to Children (and later to J. E. Gray) on his progress and which would have formed a part of the Keeper's monthly reports to the Trustees. Draft copies of many of these, in Samouelle's handwriting, are preserved in two of three bound volumes of Entomological Memoranda (for 1822–1840 and 1821–1840) contained in the Entomology Library Archives [cited below as *Entom. Mem.* **2** or **3**]; they provide an instructive insight into work carried out on the collections between 1830 and 1840.

Only two of these reports contain information about the state of the collections prior to 1830. In the earliest, dated 6 March 1829, Samouelle stated that the crustaceans and insects occupied 14 cabinets of 40 drawers each, and in an undated draft report (but probably written in 1835) the 'State of the Collections of Crustacea, Arachnoidea and Insects' is reviewed from March 1821 until July 1835. In 1821 there was a total of 11 cabinets housing these arthropods but this number had increased to 21 by 1835 and in that year the British crustaceans were contained in one, and the exotic in two, cabinets. It would appear that up to March 1821 none of the crustaceans had been catalogued, but 297 species had received catalogue numbers by July 1835. [*Entom. Mem.* **3**: 219, 224].

These crustaceans comprised much of the Leach collection and White's 1847 *Catalogue of Crustacea* gives names of donors from whom Leach obtained specimens.

In 1830 Samouelle reported that the crustaceans comprised '34 Drawers of British Crustacea arranged & named . . . and . . . 80 Drawers of Exotic Crustacea arranged and

named'. He mentioned that throughout that year he had named, catalogued and incorporated into the 'general collection' some 244 specimens of crustaceans. Between 1833 and 1834 he needed to rearrange the collections more extensively, presumably to accommodate the specimens that were still arriving from Montagu House. By June 1833 this rearrangement had been completed for 31 drawers of British crustaceans. In his report for that month he informed Children that the:

> ... Exotic crustacea [had been] arranged and named but not completed as the drawers are made of cedar ... [*Entom. Mem.* **2**: 29]

The unsuitability of this wood for specimens cabinets was due to its propensity for extruding resin and he again drew Children's attention to this problem in July 1834 by remarking:

> ... Cabinet 1. British Crustacea and arachnids in a cedar cabinet to be removed as soon as possible ... [loc. cit. p. 47].

In referring to the cabinets containing the *exotic* species he stated:

> ... These two cabinets are also of cedar wood. The contents to be removed to better cabinets ... [loc. cit. p. 47].

Thus Samouelle was committed to rearranging the crustaceans into cabinets that he considered as unsuitable and which ultimately would have had a detrimental effect on the specimens.

In 1836 the Trustees required a census of the:

> ... number of specimens and species, distinguishing those which are set up, arranged and exhibited, from those in the store chests, which the Museum possesses in the several branches of Zoology under your care ... [Memorandum from Museum Secretary to Children, bound with *Entom. Mem.* **2**].

The return made on 14 April by Samouelle listed, for the crustaceans: British: 1007 specimens representing 179 species and all contained in cabinet *A*. Exotic: 1137 specimens representing 422 species and held in cabinets *E* and *F*. At least an additional seven unnamed specimens were stored in cabinet *X*.[*Entom. Mem.* **2**: 80–101]. There was no mention of spirit preserved specimens.

Being in working order

It was about this time that the Trustees were expressing their dissatisfaction with accounts of the duties submitted by the Attendants in Children's Department, and particularly of Samouelle. That animosity had developed between Sir Henry Ellis (Principal Librarian) and Samouelle is apparent from the verbatim evidence given to the *Select Committee* When Samouelle had been asked:

> ... Have you the entire control of the entomological collection?

He replied:

> ... I cannot say that I have, because I have been told that I am a mere nothing in the Museum ... I have been told by Sir Henry Ellis that I am no officer of the Museum;

> that I am a mere nothing there. I want it to be defined whether I am an extra assistant, a keeper of the insects, or what . . . (British Museum, 1835*a*: 270).

On 5 April 1837 Children needed to ask Samouelle to elaborate upon the phrase 'being in working order' that not infrequently occurred in his reports when referring to the state of certain collections. A reply was required by 'the Attendant who brings this' [*Letters and Reports* 1828–1840: NHM Archives]. On 7 April Sir Henry Ellis, wrote to Children:

> The Gentlemen (at least some of those) who report to you are by no means sufficiently specific as to the Duties which they actually peform in your Department . . . [loc. cit].

After citing a sentence from Samouelle's report as an example he continued:

> . . . Where did these gentlemen begin-when did they end, in their labours during the last month . . . [loc. cit.]

Children communicated this matter to his staff on the same day:

> Mr. Children requests the serious attention of the Gentlemen attached to his Department (especially *Mr E. Gray* and *Mr. Samouelle*, as they are more particulary referred to) to the accompanying letter which he as this morning received from the Principal Librarian, from which they will perceive that their Reports must in future specify *the actual* amount of *Duty performed* from *Month to Month* . . . [loc. cit].

That Children found it necessary to defend his own frustrated position as well as those of his Assistants is apparent from the comments that he wrote in April 1837:

> Mr. Children . . . has made such arrangements for conducting the business of his *branch* . . . He has been anxious to establish a systematic division of labour, so that each assistant may steadily pursue a certain object, without interfering with the other and particulary to place the duties of the person employed in arranging and naming the Entomological Collections on such a footing, that he shall not . . . be liable to those continual interruptions, which sacrificing the public interest to the unreasonable accomodation of a few private individuals, has hitherto sorely impeded the advancement of those collections to that state, short of which they are comparatively useless. For this purpose Mr. Children has directed Mr. Samouelle not to admit visitors to the Entomological Collections except on the two days sanctioned by the Trustees . . .
> [*Report Book of J. C. Children*, 12 December 1835 to 13 July 1837].

Sixteen years more

Young Adam White, (**10**) who had been appointed to the Department in December 1835 and who was working chiefly on the bird collections was now about to assume a significant rôle in the curation of the arthropods:

> Mr. Children has directed Mr. White to attend in Mr. Samouelle's room every Tuesday and Thursday in order to get out Drawers for the Visitors, to camphor, where [?when] necessary and to give Mr. Samouelle such other assistance, on these days as he may be able to [?appoint] him. To enable Mr. White to render him this service Mr. Children has directed Mr. Samouelle to make Mr. White perfectly acquainted with the contents of the several cabinets, that he may at once know where to find any insect which the Visitors may ask for . . . [loc. cit.]

Children also found it necessary to confess that the state of the Entomological collections were such that:

> . . . *no one order* is fully arranged and named . . . [and that] . . . This is the state of the Entomological Collections, after Mr. Samouelle has been engaged on them for sixteen years and if the system hitherto pursued were to be still persevered in, it would not be much better in sixteen years more . . . [loc. cit.].

An admission that required drastic measures for changes that were not to occur for many years.

In February 1838 Samouelle reported that from 11 January until February he had been:

> . . . engaged on the Exotic Crustacea. Mr. S. has found it necessary to review and go through them agreeble to the arrangements of Dr. Edwards he has also incorporated those of the Hardwicke Bequest as far as he has proceeded but cannot at present ennumerate the number of duplicates as he is anxious to be correct in this respect. Mr. S. begs to state that there are a great many duplicate specimens [of] British Crustacea, that Dr. Leach always considered as his private property, as they were his own collecting, & independent of the British Collection of Crustacea. With respect to the Duplicates of the Exotic species there are but few if any for no collections has been received of any extent with the exception of Gen. Hardwicke . . . [*Entom. Mem.* **3**: 123].

It is clear that Samouelle was using volumes I and II of the recently published Milne Edwards' *Histoire Naturelle des Crustacés* (Milne Edwards, 1834, 1837) and which Samouelle's successor, Adam White, was also to use extensively for arranging the crustacean collections. The copies of these volumes in the Crustacea Sectional Library are extensively annotated by White. This report also reveals that, although the Hardwicke collection (**11**) of insects and crustaceans had been received by the Museum between 9 and 11 April 1835 and 'all the insects put into Mr. Childrens Room' [*Entom. Mem.* **3**: 123], it was not until 1838 that Samouelle could find the time to incorporate this collection. Also his reference to Leach's private duplicates of British crustaceans is of some importance, these specimens had been allowed to deteriorate to a state that eventually necessitated their disposal (see p. 172). In February 1838 Samouelle's performance was severly criticised by Children [see letter in Endnote (**9**)].

On 8 March 1838 Samouelle stated that he:

> . . . has continued the study and arrangement of the collection of Crustacea, to the present time they consist of about 111 Genera, 244 species and 513 specimens and occupy 51 Drawers . . . [*Entom. Mem.* **3**: 124].

The figures must refer to specimens he had rearranged. In April 1838 he was still curating the *exotic* crustaceans and by then had:

> . . . completed 24 Drawers since his last report; he has gone through the examination of the Collection of the Hardwicke Bequest, selected & incorporated with the General Collection 107 specimens, and there remain of Duplicates 2 Drawers . . . [loc. cit. p. 125].

On 24 April he replied to an enquiry or criticism about certain collections in his care. Unfortunately no copy has been found of the memorandum addressed to him by Children that provoked the following answer:

> . . . Agreeble to your direction the following is the particulars of the boxes & Cabinets in the Insect Room independent of the 26 cabinets containing the General Collection of 40 drawers each. Box No 2 [?or 1] from Latreille directed to yourself to the best of my knowledge I never saw until it was pointed out to me yesterday morning, or it certainly would not have been neglected and which I am sorry for. The greater portion of the Boxes belongs to Dr. Leach and contains nothing but duplicates and which Dr Leach always considered as his own private collection which he collected & reserved to give to his friends or for exchange they were duly camphored for a number of years but owing to the insecurity of the boxes it was utterly out of my power to preserve them . . . [loc. cit. p. 126].

If some of these boxes contained the Leach duplicates of British crustaceans mentioned above then apparently they were disposed of a few years later by Gray or White when they reviewed the collections (see below). Samouelle was again in trouble in May and August of 1839 for failing to provide suitable reports and in January 1840 was severly reprimanded for 'attending to students to name their insects' [*Letters and Reports*, 1828–1840] The Trustees explicitly forbade such practice and informed Children:

> . . . no person shall henceforth be allowed to bring specimens of Insects for the purpose of naming them . . . [*Trustees Minutes* 18 January 1840].

Devoting time and space to shadows

Samouelle's reports often contained requests for additional cabinets. It is evident that these were required to replace the cedarwood ones found to be unsuitable and that were causing deterioration of the specimens contained in them. However, this demand was, in part, related to the methods by which he was arranging the collections, leaving spaces in the drawers into which he could incorporate species not yet acquired, their intended positions denoted only by an appropriate label. Children strongly disapproved of this practice as it only served to emphasise the deficiencies of the collections in his charge. He stated rather eloquently that Samouelle was:

> . . . devoting time and space to *shadows*, which might be better employed on *realities*, for the species which want naming are neglected, whilst names which want the corresponding species are ostentatiously exhibited in the drawer 'more in mock than mark'—miserable momentos of the poverty of many parts of the collection—and Mr. Samouelle at the same time complains of the want of cabinets to receive actual specimens! Mr. Children recommends that no more cabinets be ordered, till the present ones are *properly filled* . . . [*Report Book of J. G. Children*].

In April 1840 Samouelle apparently found it necessary to attempt two drafts of his monthly report on the collections. Both are preserved in the *Entom. Mem.* volumes, one in Vol. 2 and the other in Vol. 3. The contents of both are almost identical but their titles differ. One version reads:

> A Report of Entomological Cabinets Boxes etc in the care of Mr. Samouelle by the *Desire* of Mr. John Ed. Gray. 4 April 1840.

In the other copy the words from 'care of Mr. Samouelle' to the end of the sentence have been deleted and 'Insect Room' inserted. In these Reports the crustaceans are described as being in:

> Cabinet A British Crustacea, Arachnoidea and Myriopoda arranged *named* and labelled by *Mr Samouelle* . . . and . . . Cabinet E.F. Exotic Crustacea named labelled and arranged by *Mr. Samouelle* . . .

The underlining* of certain words is significant. Adam White, the other arthropod curator, was now proving to be a particularly industrious worker. J. E. Gray, who had recently succeeded Children as Keeper of the Zoological Branch, was now to question the veracity of some of Samouelle's statements and was dissatisfied with the contents of this Report. He undertook his own investigation of the state of the entomological collections and a draft of his account, bound into *Entom. Mem.* **3**, is revealing. On 15 April 1840 he wrote:

> Having received the accompanying report from Mr. Samouelle which I did not consider as satisfactory as it did not contain scarcely any of the information requested by my note and some statement which I know to be erroneous as for example the remark who had arranged the Cabinet. I directed Mr Adam White to go through the collection with me and give his oppinion [sic] on such draws & Box [sic] as we examined them. The following remarks are the result of our joint examination.

The Report is a lengthy one. Summaries and quotations relevant to the crustaceans are given as follows. Cabinet A, consisting of 40 drawers, contained the British crustaceans and arachnids. Nineteen of these housed the brachyuran crabs, eight the macrurans and there was one drawer of amphipods and one of miscellaneous crustaceans. Gray remarked:

> . . . some of the drawers are bad, the grooves breaking into the camphor cells . . .

He also noted that the specimens had been:

> . . . arranged and named by Dr. Leach . . . the labels rewritten by Mr. Samouelle . . . Many of the drawers only half filled, some of the specimens nearly destroyed by gum . . .

Cabinets E and F contained foreign crustaceans. Cabinet E accommodated 'Brachiura' and miscellaneous crustaceans. Cabinet F held:

> . . . 11 Brachura [sic] . 16 Macrura. 1 Stomatopoda. 1. Lamotopoda 1 Cymothoa 1 Various species . . .

Gray noted that the glazing was broken and that the specimens had been:

> . . . arranged and named by Dr. Leach. Mr. Samouelle has since altered the arrangement (since Mr. Bell Evidence ?). so as to agree with Mr. Milne Edwards Books leaving spaces for the Genera, some of the drawers have only one or two small specimens in them.
> The Miscellaneous drawer is as left by Dr. Leach

Cabinet V of 40 drawers had contained some crustaceans from North America which apparently had been removed, and also British crustaceans of which Gray salvaged those worth keeping. In another cabinet, labelled 2B, he removed one drawer containing

* underlined words in all letters quoted are printed in italics

crustaceans and relocated this in the Exotic Collection. He also had one drawer of crustaceans from the Hardwicke mahogany cases removed and relocated into an unspecified crustacean cabinet and noted that there was:

> . . . A Cabinet with 14 Glazed Draws in 2 series.(G) . . . Duplicate Crustacea Principally from the Hardwicke Bequest.

He also listed the locations and conditions of various other crustacean collections. A deal cupboard contained the:

> . . . upper shelve filled with Crustacea from South America. Presented by Lord Frances Stewart, much worm eaten only covered with paper.

The several boxes containing Leach's duplicate British crustaceans, mentioned by Samouelle in his Report of 24 April 1838, were described thus by Gray:

> . . . These Boxes which were, what Dr. Leach kept his duplicate and unarranged specimens in have been so neglected since his time that in all many and in more than half all the specimens have been entirely destroyed by Vermine leaving only the dust and the skeleton of the specimens on the Pins. I have directed that the few specimens that can be of any use should be selected and shall recommend that the rest of them and the dust be burned. They will not make a great fire!

The Report concludes with mention of other boxes or trays of crustaceans or their pieces, some 'mostly destroyed' others:

> . . . fragments . . . entirely spoiled with dust. A Tray of crustacean from Broderips Collection, covered with dust from having been put under one of the Cabinets as they were sent to Mr. Samouelle after they had been registered!

Poor Samouelle was finally dismissed in 1841 leaving the curation of the arthropod collections in the hands of the highly competent and singularly industrious Adam White. The crustaceans were to receive a fillip in 1847 by his publication of the first, (and still the only) inventory of the entire British Museum crustacean collection.

Progressive enrichment

The frustrations that J. E. Gray inherited on his accession to Keepership in 1840 were partly ameliorated during these mid-years by the progressive enrichment of the Collections through personnel serving on Admiralty vessels. The earliest important Admiralty collection acquired and containing crustaceans had been from the ill-fated H.M.S *Congo* (**12**) River Zaire expedition of 1816 that Leach had supported and for which he had obtained Trustees permission to supply glassware etc [*Trustees Minutes*, 13 January, 1816]; he also reported on some of the specimens collected (Leach, 1817–1818). Some twenty years later four collections were received in close succession. The increase of donations from this source (**13**) may have been stimulated by recommendations arising from the *Report of the Select Committee*. During this enquiry Konig had been asked if he was:

> . . . aware that there is a regulation in the naval service, which requires officers on their return home to surrender such specimens as they may have collected abroad? . . . and that did he . . . not think it would be expedient that such a regulation should be so far altered as to enable the Trustees of the British Museum to select valuable specimens of what by regulation is considered public property? . . . (British Museum, 1835*a*: 202).

The Trustees were apparently concerned that the British Museum, rather than the Museum of the Zoological Society of London, should be the proper repository of such collections.

These four collections, all containing brachyuran crabs, were from H.M.S. *Erebus* and *Terror* (**15**) Antarctic Expedition of 1839–43 but not reported upon until 1874 and by Miers, although White had apparently planned to described at least part of this collection (see **16**). Then followed those made by: H.M.S. *Fly* (**17**) during the south western Pacific survey of 1841–1846 (see White, 1847*a*); by H.M.S. *Samarang* (**18**) off the coasts of China, Japan, Korea and Borneo between 1843 and 1846, the specimens collected were described by Adams & White in 1848 (but see (**19**)); by H.M.S. *Rattlesnake* (**20**) during the south-western Pacific survey of 1846–1850, but not reported upon until much later and by Miers (1884). The last to be received was from H.M.S. *Herald* (**21**) commissioned to survey the North and South American Pacific regions. Again, these specimens were not reported upon until several years later and also by Miers in a series of papers (Miers, 1878, 1879, 1880, 1881, 1882, 1884).

Two other collections were acquired during these mid-years. Of significant value for number and diversity of species were the decapods collected from Indo-Pacific localities by Major General Hardwicke (**11**). These had been received on 9 April 1835 and contained in fourteen drawers of one of the several cabinets of his insects. They were eventually incorporated into the general collection by Samouelle. Now considered of some historical importance are the specimens from the Rijksmuseum van Natuurlijke Histoire, Leiden, received in two consignements in 1844 and 1845, and referred to by White (1847) as the *Leyden Collection* (**22**). These comprise syntypic material collected by von Siebold and Heinrich Burger when in Japan and were reported upon by de Haan (1833–1850).

A catalogue of Crustacea

Although, in 1847, Adam White had produced a commendable catalogue of the Crustacea collection, it was Gray's ambition to have his catalogues periodically updated. His already hard-pressed staff were fully occupied with the curation and identification of incoming specimens with barely any time to devote to revisionary tasks of this kind. As there was little likelihood of staff numbers being increased, Gray had to resort to commissioning paid outside help for this work. For the crustaceans Thomas Bell (**23**) was employed to produce a catalogue of the leucosid crabs, a group on which he had specialised. This catalogue was published in 1855 (Bell, 1855) and was 'planned to be the first part of a catalogue of Crustacea' [Bell, in British Museum, 1906: 732]. As an inventory of specimens it is of limited use. The work comprises mainly of systematic diagnoses of leucosid crabs and only general localites are given. 'BM' is suffixed against the entries for British Museim specimens; those in Bell's private collection and in other places are also listed. This *Catalogue* appeared in the same year as Bell's more detailed systematic treatise on the Leucosiidae (Bell, 1855*a*) that was mentioned by Gray in his Preface to the *Catalogue*. A reappraisal of Leucosid types designated by Bell was made by DiMauro (1982).

THE LATER YEARS: A. G. BUTLER TO W. T. CALMAN (1863–1904)

The Spirit Room

In 1856 the various Branches had been upgraded to Departments and by this time the Zoology Department's specimens on display were distributed in the galleries of the

greater part of the East Wing upper floor. The Keeper (J. E. Gray) and Assistant Keeper (his brother G. R. Gray) occupied a semi-basement room in the North Western part of the building adjacent to the 'Insect Room' (fig. 1, A). By then the numbers of specimens preserved in alcohol had increased and the bulk of these were stored in the so-called *Spirit Room* in the East Wing basement. The conditions in which these bottles were kept left much to be desired:

> . . . There was no ventilation. To secure a draught through doors and windows meant drawing coal and other dust from the passage adjoining. So the stagnant air either deposited its moisture, or held it in suspension, according to the humidity of the atmosphere. The flagstones were continually saturated from springs that in former years had supplied the residents of Bloomsbury with excellent water. This rotted the bottoms of cases, and caused the labels on the bottles to drop off. The temperature was kept at 60 to 65 degrees by hot-water pipes. On account of the spirit, lights were not allowed and when the days drew in work had to be suspended . . . (Gunther, 1975: 264).

Gray was very concerned about the state of these collections. Between 1854 and 1868 he had them transferred from the basement into galleries attached to walls above the exhibition cases in the East Wing. He had also tackled the problem of label deterioration:

> . . . The mode of writing the name on a white disc, painted on the bottles, introduced some years ago has been found a complete remedy for the evil that arose from the paper labels becoming obliterated and detached . . . (British Museum, 1867: 48).

Of the remaining vertebrate material still stored in the basement in 1867 he remarked:

> . . . the great variation of temperature, and occasional heat of the locality, occasion rapid evaporation and deterioration of the preserving liquor, [(24)] accelerating decay. Registered specimens, when so far dissolved and decomposed as to lose character, are removed . . . (British Museum, 1868: 30).

The Banks specimens

Adam White apparently set himself the task of cataloguing every arthropod in the Museum's collections. This onerous work and his willingness to assist anybody with enquiries concerning the collections or other matters no doubt contributed to the 'mental indisposition' that forced him to retire in 1863. A. G. Butler (**25**) who was appointed to this now vacant post in 1863 was to be:

> . . . employed upon the entomological collections temporarily; he had to take up also Crustaceans, Myriopoda and Arachnida (Günther, 1912: 17)

This suggests that these latter groups were more or less obligatory and therefore would receive less attention than the insects. Butler eventually became an authority on Lepidoptera but his interest in Fabrician specimens led him to incorporate the crustaceans and insects of the Banks Collections (**26**) received from the Linnean Society of London in 1863 (Günther, 1912: 23). It is not known if Butler was responsible for attaching the small labels printed with the words 'Banks Coll.' to the dry specimens or whether this was done much later when the Dry Crustacean Collections were again reorganised between 1898 and 1902 (see p. 182). At least 40 of these labelled specimens

have been located among the dried crustacean material. The majority bear just the small printed label, but a few are mounted on cards (**27**). None of these specimens have information that discloses their history. Brachyuran crab species bearing these 'Banks Coll.' labels are listed in the Appendix.

To acquaint himself with the collections of Crustacea

Butler remained in charge of the crustaceans until the appointment of Edward John Miers in 1872. Miers was:

> ... directed to acquaint himself with the collections of Crustacea and to act as amanuensis to Dr. Gray ... (Günther, 1912: 22).

J. E. Gray had been recently partially paralysed after a stroke, knew the Miers family and sponsored his application for a Junior Assistantship at the Museum, stating:

> ... I can recommend him from personal experience as he has lately written letters and scientific papers for me from direction. I have known him from his birth, he is the Grandson of Mr. Miers FRS the celebrated botanist ... [Gray to Winter Jones, 24 February 1871: NHM Archives].

A knowledge of foreign languages was then an important attribute and Miers had indicated in his application, dated 29 February 1871, that he could:

> ... read, write and speak Frence, read Greek and Latin with some knowledge of German ... [British Museum, Bloomsbury, paper no. 2869: copy in NHM Archives].

He also modestly stated that he had some practice in drawing, but a testimonial letter from his tutor on this subject, Henry I. Tollit, was more affirmative:

> ... He has a natural taste for Drawing and Shading and much perseverance—He was one of my most successful pupils ... [15 March 1871, from The Parks, Oxford, Miers letters: copy in NHM Archives].

It was fortunate that Miers was permitted to confine his studies exclusively to the crustaceans but regrettable that he was to remain in office for only thirteen years. The quantity and quality of his systematic work was remarkable, particularly as he received almost no help with the increasing problems of curating a collection that was growing rapidly during the particularly unsettled period of his employment. Miers established some 32 new genera and subgenera and described at least 260 new species and subspecies of decapods (Gordon, 1978: 124). Some of these were of specimens previously incorporated into the Museum's collections, but others were received during his time, culminating in the rich collection of brachyuran crabs from H.M.S. *Challenger* (**28**).

Prostrated by illness

In February 1875 Albert Günther succeeded J. E. Gray as Keeper. In 1876 the construction of the new Museum at South Kensington had reached an advanced stage, but it was not until June 1880 that the building could be officially handed over to the Trustees by H.M. Commissioners of Works. Only then could the transfer commence of

the collections from Bloomsbury. Although this began in the early summer of 1880, the zoological galleries were not completed until 1882 and the moving of the zoological specimens could not commence before July of that year. Meanwhile at Bloomsbury, as early as 1878, the first major disruption was to occur. The studies occupied by the Zoological Department were now required for a new antiquities gallery and it was necessary for the staff, their effects, and much of the collections to be relocated in the recently vacated geological galleries. This move must have severly hindered the normal work of the Department and Miers would, no doubt, have been involved, along with the other staff (**30**) in the various tasks associated with this transfer of the Department as well as with the initial preparatory work needed for eventually moving the collections to South Kensington in 1882. Although faced with these problems Miers nevertheless, produced some 29 papers during these five years some of which he illustrated himself. A number of these were substantial contributions, such as the *Stalk-and Sessile-eyed Crustacea of New Zealand* and also major revisions of certain groups-the Plagusiinae, Hippidae, Majidae, Squillidae and Idoteidae (see Miers 1878, 1878*a*, 1879, 1879*a*, 1880, 1881). Of the Admiralty donated collections, Miers reported upon those obtained by: Capt. St. John's Japanese coast Survey (**31**) of 1870–1877 in H.M.S. *Sylvia*; the *Transit of Venus* Expedition (**32**) of 1874–5 to Kerguelen and Rodriguez Islands; by H.M.S. *Peterel* (**33**) from the Galapagos Islands; by H.M.S. *Isbjorn* (**34**) to Novaya Zeemlya in 1879; by Baron Hermann Maltzan (**35**) from Goree Island during 1881 and the substantial collections of H.M.S *Alert* (**36**) from the Magellan Straits and Patagonia during 1881–1882. All were donated during his tenure (see also p. 181). Such application and industry must have contributed to his apparent state of collapse disclosed to an unspecified correspondent (but probably Paul Mayer):

> . . . I much regret not having been able to answer your letter before; but I have been completely prostrated by illness during the last three months, and am even now unable to do more than attend to a few matters that absolutely require immediate attention after which I am going away for further rest . . . [7 October 1800, Miers letters: NHM Archives].

In 1882 Miers must have felt sufficiently recovered to accept his largest taxonomic undertaking, the report on the brachyuran crabs collected during the voyage of H.M.S. *Challenger*. In June 1882 John Murray wrote:

> . . . I have send you to-day addressed to the British Museum 6 boxes containing Brachyura . . . My wish is that you would make a careful preliminary examination of the collection now sent to you, and then send to me at your convenience as correct an estimate as you can form, of the number of plates you will require for illustrating your Memoir, and the number of pages (Quarto) to which your memoir will probably extend . . . [23 June 1882; Miers letters: NHM Archives].

Miers replied that:

> . . . it will be necessary for me to postpone the preliminary examination of the 'Challenger' *Brachyura* for a short time in order to complete a report upon another collection now in process of determination . . . [7 July 1882, Miers letters: NHM Archives].

This was the *Alert* report.

Single-handed & without assistance

It was not until 1883 that Miers seems to have been able to continue with the preliminary sorting of the *Challenger* specimens. In April he returned to Murray a box of larval brachyurans and commented:

> . . . Certainly they could hardly be included in my report upon the adult *Brachyura*, since the limited time at my disposal and my other duties would prevent close anatomical study of their affinities. [2 April 1883, Miers letters: NHM Archives].

The time had now arrived for the first of the arthropod collections to be moved to South Kensington. Miers was informed, but found it necessary to ask Günther to allow him to delay moving the crustaceans. This letter is quoted here in full since it gives a glimpse into the many problems that beset Miers at that period:

> . . . As I understand from Mr. Waterhouse it is your wish that I should begin at once to pack up the spirit collections of Crustacea for transference to the New Museum I venture to take this opportunity of asking you either:
>
> (1) that the removal of the *whole* collection be effected at once or (2) that it may be delayed until the completion of my preliminary examination (at least) of the 'Challenger' Brachyura, which has been necessarily delayed by the preparation of the reports of the Crustacea collected by H.M.S 'Alert' & Co.
>
> The examination of the 'Challenger' collection, which is of very large extent, shews that before I can furnish Mr. Murray with the statement he urgently requires as to the probable length of the report & number of plates needed to illustrate it, I must determine for myself the true limits of the group, about which at present the greatest uncertainty exists, and must acertain from Dr. Jules Barrois of Villefranche, who is charged with the description of the *Anomura*, which of the debatable minor groups & genera he proposes to retain for his own report (there are, I think, in any case, a certain number of genera which have been sent to me as *Brachyura* which must be sent to him); to determine these points I have continually to refer to the types in the Museum Collection. I may add, that if I am to complete the report within the specified time (which I am told by Mr. Murray cannot possibly be exceeded), I must give myself more unreservedly to the work, which would be greatly facilitated if I could have (as hitherto) the dried-and spirit-collections, near together, so that not only the types in the Museum Collections would be available for study, but also the determination of the species in the Museum & of the accessions could be carried on with as little waste of time to the Trustees as possible. I would remind you that up to this time the registration, labelling & incorporation of almost all the specimens has been effected by me single-handed & without assistance. I would respectfully suggest to you that, if the collections under the charge of Mr. Ridley & Mr. Bell are transferred *before* the Crustacea, it would give me a few weeks additional time & the space required for separating the species in the 'Challenger' collection, during which time I might possibly be able to furnish Mr. Murray with the information for which he presses me. Doubtless, it will not be possible to have in the New Museum the Collections of Crustacea as conveniently placed for reference as in the rooms we at present occupy, on which account, only, do I regret having to leave them . . . [14 May 1883, Miers letters: NHM Archives].

Miers wrote the above letter from his home in Upper Tooting. It is not known whether he was on vacation or still unwell. Günther made concessions and during May Miers was able to inform Murray:

> . . . I have completed the first or preliminary examination of the Brachyura and have put aside twenty bottles and tubes containing Dromiidae, Paguridae, Lithodidae, Porcellanidae, Galatheidae, *Remipes*, together with an unopened tin case marked 'K.V' sent as containing *Birgus latro*, which I can forward if you think fit, direct to Dr. Jules Barrois at Villefranche. I am as yet quite unable to say to what length my report will extend, but as far as can be judged from a preliminary & very superficial examination, the proportion of new forms is not large & I daresay 10 or 15 plates would contain everything requiring illustrations; the number of species and genera is however so great & so many will require a close comparison with described types that I will not express myself very positively on this head.
> At the beginning of the week I received instructions to commence packing the whole of our Crustacea for removal to Kensington & was in fear, therefore, that the 'Challenger' work might be shelved for some weeks or even months, but I have obtained a respite of a few weeks during which I hope to make some further progress with it. We shall not, I fear, have our Collections so conveniently arranged for work in the new building for a long time to come . . . [17 May 1883, Miers letters: NHM Archives].

Barrois was unable to find sufficient time to work up the Anomura and returned the collection to Murray. This group and the dromiaceans was eventually reported upon by Henderson (**37**).

In September 1883 Miers received Murray's consent to incorporate into the Museum Collections the specimens to be retained. He also informed Murray on 17 September, that he intended, with permission, to figure:

> . . . not only the new species in the Collection (which are not very numerous) but also such forms as have never yet been illustrated and are insufficiently known . . . [17 September 1883, Miers letters: NHM Archives].

By January 1884 Miers had received proofs of the first and second plates that he sent to Murray for approval. In May 1884 he had to inform Murray that he had:

> . . . been unable to make but little progress with the 'Challenger' Brachyura latterly . . . [31 May 1884, Miers letters: NHM Archives].

Although most of the descriptive account apparently had been completed he still had . . . a good deal of preliminary work to do in regard to the classification of the genera and some of the families included in the Report. [Loc. cit.].

Murray replied by asking if he should approach Flower (then Director) or Günther to see if he (Miers) could be allowed more time to devote to the task. He also asked Miers to prepare an abstract of the proposed Report. Miers promised a short abstract by the end of June and retorted that:

> . . . The work which has somewhat delayed the report has been the regular work of the Dept which must of course always take precedence . . . [4 June 1884, Miers letters: NHM Archives].

In the retained draft of this letter sent to Murray the last sentence is deleted but reads:

> . . . Prof. Flower & Dr. Gunther have always shewn me the greatest indulgence and allowed me the fullest liberty consistent with my duty to the Museum. [Loc. cit].

In July he sent to Murray the requested Abstract and also enclosed further proofs of some plates. He also asked permission to publish this Abstract in the *Annals and*

Magazine of Natural History 'in order to secure priority for names of the new species' [5 July 1884, Miers letters: NHM Archives]. Murray, however, was not prepared to publish this submitted Abstract if it was also to appear in the *Annals* and suggested that Miers should publish diagnoses of the new species. Miers withdrew his original request, but in a postscript to a further letter stated that he may consider publishing these diagnoses 'if time and opportunity allow' [14 July 1884, Miers letters: NHM Archives].

During August he was again absent from the Museum but correcting his proofs from an address in Filey, Yorkshire. He informed James Monteith at the *Challenger* Expedition offices that:

> . . . Should I (as is possible) be in Edinburgh for a day or two at the beginning of next week, I will bring the paper with me as I could make these little additions as well there (no doubt) as in London . . . [15 August 1884, Miers letters: NHM Archives].

In October he received proofs from C.Spence Bate (**38**) of that author's Introduction to the Report of the *Challenger* Macrura. Presumably Bate had hoped that Miers might adopt the somewhat precious nomenclature that Bate, in part, had originated for the descriptive taxonomy of the species. Miers, however, tactfully declined stating that:

> . . . I fear I am already too far advanced with the descriptions of the Brachyura for it to be possible for me to adopt your system, and as moreover, my Report will be a very simple descriptive account of the genera & species & as the simpler nomenclature is used by Prof. A.Milne-Edwards & most other systematists, I think I cannot do better than adhere on the whole to my ordinary method of description . . . [4 October 1883, Miers letters: NHM Archives].

The best systematic authority

Following some slight misunderstanding about the quality of the proofs accompanying the Abstract and which he needed to amend, Miers was able to inform Murray on 8 October 1884, that all the preliminary sketches had been prepared of species to be illustrated in the Report and that these would comprise 28 plates. He also wanted to send copies of the Abstract to fellow taxonomists but Murray preferred that he published diagnoses of the new species rather than distribute copies of 'an unpublished account like the abstract' [10 October 1884, Miers letters: NHM Archives]. Miers replied at some length:

> . . . Thank you for your letter. If you send me the copies of the abstract I will of course not send them to anyone likely to take unfair advantage of the information it contains, or if you prefer it I will not distribute them until the publication of your Volume (In the Narrative of the Voyage—see Tizard et al. 1885). Prof. A. Milne-Edwards sent to me and I believe to other workers (certainly to S. I. Smith) a large number of unpublished Plates of the new Brachyura Anomura Macrura & Schizopoda of the 'Blake' and Travailleur Expeditions which have been of great assistance to me in my work. By the way (since you once spoke to me on this matter) I should have thought that A. Milne Edwards ought to be asked to take some part in the Report on 'Challenger' Crustacea; that is, if he has not already been invited to do so. I suppose he is the best systematic authority on the higher Crustacea. I may mention that I took the liberty of submitting the cuts of new Challenger Crabs figured in the Abstract to him and he agrees with my ideas about their affinities.
> My objection to the publication of diagnoses is, that, although they would secure priority they would be of little use to other workers; besides, I do no scientific work

> outside of the Museum & could ill spare the time within official hours for the compilation of such a paper . . . [14 October 1884, Miers letters: NHM Archives].

But Milne Edwards apparently was not invited to contribute. An obvious choice as Miers intimated. Milne Edwards had been one of the leaders of the 'Commission' for the marine explorations carried out by the *Travailleur* and *Talisman* (**39**, **40**). However, as both Gwyn Jeffreys (**41**) and A. M. Norman (**42**) had freely given advice to the French on dredging matters associated with these expeditions but were not invited to participate in studying the collections, Murray (who no doubt, had known of this situation) may have used this request by Miers as an opportunity deliver a slight rebuff to the French academies.

Conscientious motives

In January 1885 Miers was again unwell but by March had returned to the Museum from where he acknowledged the honorarium of £63 for his contribution to the *Challenger* Reports. In April he was again absent and wrote to Günther from Upper Bangor in N. Wales:

> Although benefitted by my few days stay here, I regret to say I feel the effects of the severe shaking I had last week, more than I could have anticipated . . . [23 April 1885, Miers letters: NHM Archives].

He expressed his regret for this absence in view of how short-handed the Department was. Throughout July he was also unwell, and informed Günther: 'I am still unable to apply myself to anything' [12 July 1885, Miers letters: NHM Archives]. It must have been about this time that he considered resigning from his post at the Museum. During August Francis C. Miers wrote to Günther:

> . . . His proposed resignation was dictated from concientious [sic] motives he being under the conviction at the time that his health would not allow him to pursue his work and he considered it right to give notice to that effect. He is now, however, very much better & I believe that with care and a little more rest Edward will recover his usual health & be quite able to resume his duties . . . [16 August 1885, Miers letters: NHM Archives].

Nevertheless, Miers tended his resignation to Prof. Flower (the Director) on 30 October 1885 but he may have again returned to duty since he wrote to Günther in November that he was:

> . . . remaining at home this morning as I am not feeling quite well, and have some work which I can do at home, but I hope to come as usual to the Museum tomorrow . . . [23 November 1885, Miers letters: NHM Archives].

But it was not to be and the Trustees reluctantly released him from their employment. In May 1886 he wrote to Edgar A. Smith (see **30**) from an address in Beckenham, Kent:

> . . . Please to open all parcels & co addressed to me at the Museum and forward merely letters. I am a little better and trust that my successor will shortly be appointed. Thank Dr. Günther for his kind enquiries. Mr. Waterhouse has the key to my desk . . . [27 May 1886, Miers letters: NHM Archives].

A most excellent contribution

In June 1886 he was apparently well enough to edit part of his *Challenger* manuscript (sent to Murray in instalments between 1 April and 25 November 1886) and wrote to Murray from his home address in Tooting:

> . . . I find on looking over the MS. which remains of my Report on the Challenger Brachyura that it could hardly be printed off without such slight emendations as I can easily give to here, and I think that it will be best after all if I continue to correct the proofs myself my health having much improved.
> I now send you therefore by parcel post the part only of the MS containing the *Cycometopa* or *Cancroidea* which is ready to be printed off, and hope to return to you in a few days some of the proofs which I have here, corrected for press. I sincerely trust & hope there will be no further delay in the execution of the work to which I will if possible regularly give my evenings in the future. [24 November 1886, Miers letters: NHM Archives].

John Murray replied that he had received the manuscript and added that:

> . . . During the past few days I have been going rather carefully over your Report: it is excellent and very valuable and the manuscript you have now sent is so clear and well prepared that I do not think there will be much work in passing it through the press. I am sure the work will do you very great credit; in the eyes of all naturalists it will be regarded as a most excellent contribution to science.
> I hope your health will be such as to enable you to look over the proofs . . . [26 June 1886, Miers letters: NHM Archives].

His last letter concerning Departmental matters was written to Günther during August 1887 and in answer to an enquiry from R. I. Pocock who had been appointed as an Assistant in 1885:

> . . . A few of the Fabrician types of Crustacea, about which I have received a note from Mr. Pocock, are in the small cabinet placed on the top of larger cabinets in the room containing the Crustacea and Lepidoptera. These cabinets also contain a number of Crustacea belonging to the regular collection which requires rearrangement in the new cases provided for a year or two ago, which I will see to when I am able to return to my lodging at Wandsworth Common and to my work in the Museum . . . [30 August 1987, Miers letters: NHM Archives].

There is no evidence that Miers ever returned to deal with this matter and thus the Department was deprived of an outstanding carcinologist and a conscientious an able curator. He lived on in retirement to a respectable age of 79 years and died on 15 October 1930 at Burchett's Green, near Maidenhead, Berks.

Collections received between 1860 and 1885 (other than those mentioned as reported upon by Miers) containing significant brachyuran specimens were: those from the south western coast of America obtained during the survey by H.M.S. *Nassau* (**43**); from the Indian Museum, Calcutta (**44**); from the N. Pacific coast of America and determined by W. N. Lockington (**48**); from the Smithsonian Insitution, Washington (**50**); from the Arctic Expedition of H.M.S. *Valorous* (**53**); from the overseas collections of the International Fisheries Exhibition of 1883 (**54**); those made in Aden by Major Yerbury (**55**).

Shared responsibility

The premature retirement of Edward Miers in 1885 left the Museum's crustacean collections again virtually unstudied. They were immediately put under the care of Jeffrey Bell who later shared the task of their curation with Reginald Pocock. Francis Jeffrey Bell had been appointed in 1878 to take charge of the vermes and echinoderms. He also held the post of Professor of Comparative Anatomy at King's College, London, from 1879 until 1896. Bell's interest was chiefly echinoderms on which he regularly published. His crustacean research is represented by only one paper (Bell 1902) and he compiled the Crustacea Section of the *Zoological Record* in 1885 and 1886. It has been said of him that "such time as he could spare from the adornment of his person he devoted to neglecting the echinoderms" (Gunther, 1975: 406) and that he was most at home in furnishing reviews to the *Athenaeum* and abstracts to the *Journal of the Royal Microscopical Society* (Anon, 1924: 541). Nevertheless, Bell was responsible for incorporating a considerable number of crustaceans into the collection and the Accession Register contains many pages in his characteristic handwriting (fig. 1,f) listing specimens that he identified between 1894 and 1904. He also compiled a manuscript catalogue of brachyuran species (see p. 186). He retired from the Museum in 1919 and died in 1924.

Reginald Innes Pocock had been successful in a competitive examination for an Assistantship in the Museum and was appointed to the Zoological Department in 1885. Initially he worked for a year on the entomological collections but was then put in charge of arachnids and myriapods and shared the curation of the crustaceans with Jeffrey Bell. He resigned in 1904 to take up the post of Superintendent at the Zoological Gardens, London, from where he retired in 1923. He died in 1947.

If Pocock had been instructed to make the crustaceans his priority then undoubtably the Museum would have had an authority on this group equal or possibly surpassing the industriousness of Miers. Pocock's scientific output was truely prodigious. He published over 500 scientific papers. Fifteen of these were on crustaceans, the rest on arachnids, myriapods and mammals. He was promoted to a first class Assistant in 1895 and some idea of the administrative tasks that he added to his scientific ones can be gathered from the following remarks:

> ... His official position at the Museum brought him into contact with men and women of various grades of society and of many nationalities. It also entailed the preparation of official reports and recommendations; and involved business relations with dealers, printers, artists, etc to settle prices of specimens, arrange work to be done and check bills; while periodical superintendence of carpenters, labourers and attendants gave him experience in the management of men in a subordinate position ... (Hindle, 1948).

Although he officially retired in 1923 he still travelled from Bloomsbury to South Kensington and was working at the Museum the day before his death.

Thus both Bell and Pocock took their share at incorporating the ever increasing numbers of crustaceans being received. During 1886 Bell was registering specimens, but from the end of that year and until 1894 Pocock was responsible for the majority of entries. After 1894 Bell's handwriting again predominates until 1904 when it is succeeded by that of William Thomas Calman who by then had taken charge of the crustaceans. Between 1898 and 1902 the collections of dry and pinned crustaceans were apparently all transferred and rearranged into new cabinets, commencing with the oxyrhynchs (British Museum, 1899: 94; 1901: 112; 1902: 104; 1903: 117). This work was probably carried out by Bell and perhaps completed by Calman.

The ever growing collections

During the seventeen years that Bell and Pocock shared the curation of the crustaceans, many large collections were acquired. Those containing significant numbers of brachyuran crabs were: donations and purchases from Francis Day (**56**) from various Indian localities; those from the Atlantic and Mediterranean explorations of the French vessels *Travailleur* (**39**) and *Talisman* (**40**) acquired through exchanges with the Museum D'Histoire Naturelle, Paris; the collection from Christmas Island made during the visit of H.M.S. *Flying Fish* (**57**); from Mauritius purchased or donated by M. V. Robillard (**58**); from Fernando Noronha donated by the Royal Society of London (**59**); collections acquired from the Colonial Exhibition (**60**) of 1886; from Dominica presented by the West Indian Commission (**61**); from John Murray's *Medusa* expeditions (**62**) in the N. Atlantic; from Tizard and Macclesfield banks via H.M.S. *Rambler* (**65**) and those from Macclesfield and Holothuria Banks via H.M.S. *Penguin* (**66**) and H.M.S. *Egeria* (**67**); dromiids etc from the *Challenger* collection determined by Henderson (**37**); the collection received as an exchange with the Warsaw Museum (**68**); the large collection purchased from A. M. Norman (**42**) that included specimens from H.M.SS. *Porcupine* (**69**) and *Triton* (**64**); the collections made by Messrs Bedford and Lanchester (**70**) in Singapore and Malacca.

Does not promise to be so very tempting

The appointment of Calman to the Department's staff in 1903 as a temporary assistant was to provide a much needed stimulus to the curation of the crustacean collection lasting well into the present century. Calman's biographical details have been well documented (Cannon, 1953; Gordon, 1954). Calman's outstanding aptitude as a carcinologist was acquired in the Natural History Department of University College, Dundee and nurtured by Professor D'Arcy Wentworth Thompson who had built up an imposing teaching collection there, and it could be said that Calman was well on his way to making his most important contribution in carcinology before he joined the Museum's staff.

The quality and number of papers that Calman had produced while at Dundee had attracted the attention of Sir E. Ray Lankester, then Director of the British Museum (Natural History), who approached him to write the crustacean part for the Oxford *Treatise of Zoology* series that Lankester was editing. Pocock acted as Lankester's intermediary in negotiations with Calman about the *Treatise* crustacean volume and in one of his letters he suggested to Calman that he should 'come to London to take over our Crustacea' [30 October 1902: NHM Archives]. But as early as May 1901 Calman had expressed his view on this matter to D'Arcy Thompson 'Upon the whole, the B.M. offer (if it does come) does not promise to be so very tempting' [7 May 1901: copy in NHM Archives]. However, Calman may have eventually decided that the environs of a large museum with good library facilities and collections were better suited for the writing of his volume of the *Treatise* than the rather parochial surroundings of Dundee. The British Museum (Natural History), that was fast becoming 'the centre of zoological thought in the country' (Cannon, 1953: 361) was then able to provide both and may have greatly influenced his acceptance in 1903 of the temporary post in the Department where he continued with preparation of the volume. A year later, when Pocock resigned, he was appointed to take charge of the crustaceans and pycnogonids and, for a short while, the arachnids.

Changes

That Calman's appointment to the permanent staff 'as a First class Assistant, with charge of the Crustacea' [28 July 1919, Calman to University Court, St. Andrews University:

NHM Archives] had not been an easy one is evident from a lengthy letter written by him to D'Arcy Thompson in January 1904. As Cannon (1953) pointed out, the method by which his appointment was made secure may have precluded his chance of later becoming the Museum's Director. This appointment was by recommendation and not by the competitive examination that the Trustees would have preferred. Lankester nevertheless, was keen to fill the vacancy with an acknowledged expert because, as Calman had remarked to D'Arcy Thompson 'if they put in a young untrained man to work at Arachnids or Crustacea there is no one in the Museum who can teach him anything about his work' [25 January 1901: copy in NHM Archives). Calman had hoped that the suggestion of a permanent appointment could come from one of the Trustees rather than from Lankester himself (whose relationship with them was 'not of the sweetest' [Loc. cit.]) and he tactfully asked D'Arcy Thompson if this could be effected, remarking that Norman would be 'much concerned about what will happen to his collections when they come here and it would ease his mind somewhat perhaps if he knew that the Crustacea at least would be in charge of a man who would not dry them & stick them on pins' [Loc. cit.].

The Museum's crustaceans were more or less still classified on the system proposed by the French zoologist A. Milne Edwards. Calman's first task was to rearrange the collection according to the new system used in his volume of the *Treatise*. In this undertaking he was probably assisted in the routine work by the Attendant assigned to him, William Ernest Barnett (1886–1966) who gave devout service to Calman for many years. Calman's characteristic handwriting (fig. 1, H) appears first in the accession register in September 1904 and continues until 1918; there are a few entries by him in 1920 and 1924. From November 1904 until September 1937 an increasing number of entries also occur in Barnett's handwriting (fig. 1, I) and later in that of Isabella Gordon (1901–1988) who succeeded Calman as the officer in charge of the crustacean and pycnogonid collections (Holthuis & Ingle, 1989) and for whom Barnett worked until he was seconded for 'war service' during the second World War. Barnett did not return to the Crustacea Section and officially retired in December 1958, having served the Trustees for 54 years.

REGISTERS AND INDEXES

On 14 June 1838 Children reported to the Trustees:

> ... All new acquisitions, on their arrival, have a ticket, with a number, affixed to them, and a corresponding number is entered in a book, called the 'Inventory' with the locality of the specimen, name of the Donor, if present, time when received, etc- ... The Entomological catalogue which is contained in 15 larger 4th [=quarto] volumes, was began by the late Dr. Leach who seems to have registered about 3564 subjects and since he left the Museum in 1821, it has been continued by Mr. Samouelle ... [Letters and Reports, 1828–1840: NHM Archives]

None of the existing volumes of arthropod registers examined can be identified as begun by Leach. There is a bound quarto register, now in the Crustacea Section Library, containing crustacean entries numbered 1–533 and in Samouelle's handwriting (fig. 1, b) but the last entry (in White's handwriting) is number 539 after which this register was discontinued. This may be one of the volumes mentioned by Children as 'continued by Mr. Samouelle' but it has not been possible to establish the date when the register was commenced, it may have been discontinued at about the time of Samouelle's dismissal in 1841. A register of smaller dimensions, containing almost entirely crustacean entries,

also in the same Library comprises three volumes with the spines inscribed *Catalogue of Crustacea*. These are numbered respectively 1–348, 349–694 and 695–1036. The original entries in the first and part of the second volume are in an unrecognised handwriting but after number 540 all are by Adam White who on most pages of the entire register has inserted lower case alphabetical letters to designate the number of specimens (see fig. 1, d). Entries 1–539 are copied from the other register mentioned above.

The date of origin of this smaller *Catalogue* is also uncertain. A note on the flyleaf by Isabella Gordon reads 'This catalogue is partly the work of G. Samouelle (?); he was employed from 1821–41 so that the thin writing as on p. 1. may be his or that of a clerk of his time. The supplementary entries and the later ones from 540 on are in Adam White's unmistakable round hand-c.f. White's signature in the General Library.' An inserted pencilled remark reads 'W. E. Leach's collection was acquired in 1826. Since this register begins with the entry of Leach's specimen of *Limulus* it is probable that it dates from 1826.' However, a careful comparison of the unrecognised handwriting in the first half of this Catalogue with that of Samouelle's suggest that none of these entries are by him. This Catalogue was probably initiated by Adam White and used as a basis for his List of the Crustacean in the British Museum (White, 1847). White apparently preferred to start a new register instead of continuing the one compiled by Samouelle. The unrecognised handwriting may be that of one of the seven Attendants employed by the Department at that time and who, under White's supervision, would have transcribed the entries from the other register and also incorporated the unregistered specimens.

Other early registration books for arthropods are contained in the Library of the Entomology Department and date from 1837–1849. One set bears the title *Register Entomology*. In these, from April 1837 until September 1841, each species (or lots of the same species) is numbered chronologically, commencing again with no. 1 at the beginning of each month. After September 1841 this was changed to numbering each collection followed by the number of specimens and beginning at number 1 for each new year; from 1849 the name of the month was sometimes inserted. In 1838 another register was also commenced, the-*Zoological Accessions Annulosa Register* and from 1838–1849 entries from the *Register Entomology* were copied into this and the same specimens were re-registered using the numerical citation of year, month and day; many of the early entries are in White's handwriting. From February onwards the year is often omitted when Samouelle has made the entry. From October 1841 the system then reverted to year, collection number, and number of specimens and is used in the register then started (in 1876) exclusively for the crustaceans and continued in this form until 1889 after which the numerical year, month, day and number of specimens is once again used.

The oldest extant index of crustaceans, now contained in the Zoology Department's archives, was commenced by Adam White. This is a systematic index comprising quarto sheets onto which generic, specific diagnoses, synonymies, and distributions of species are entered. These manuscript sheets are held between stiff white covers the spines of which are inscribed *1–85 Diptera* and *2440–2521 XXIX Coleoptera*. (These covers were obviously used for conveniently retaining the pages since their inscriptions bear no relationship to the contents). Although the majority of the entries are decapods, a few isopods are interspersed among these, suggesting that this may be the surviving part of a larger index. A few pages, in a handwriting that has not been identified, differ from the others in that they are entries of named specimens in the collection and an encircled registration number has been appended on the top left of each page. These species and numbers are the same as those in the *Catalogue of Crustacea* mentioned above.

Bell (British Museum, 1906: 732) stated that Miers had 'made notes for a catalogue of Brachyura'. If this was of the collections then none of it appears to have survived. However, in the Zoology Department's Library there are three bound volumes of crustacean figures, originally the property of J. E. Gray but with 'Edw. J. Miers'

inscribed on the fly-leaf of each volume. Volume 1 is labelled *Podophthalmata, Brachyura* and is composed of 82 pages of cut and pasted illustrations from published works or of coloured tracings. Volume 2 is labelled *Podophthalma Anomura, Macrura, Stomatopoda etc* and comprises 77 pages. Some are brachyurans, a few appear to be original figures. Volume 3 titled *Edriophthalmata Entomostraca. Cirripedia, Pycnogonida and Xiphosura* contains 148 pages also with some original figures.

Finally, the 'complete MS. list of all the known species of Brachyura' that Bell (British Museum, 1906) stated he had compiled and 'constantly kept up to date' is also in the archival collection of the above mentioned Library. This catalogue comprises paper sheets measuring 25 × 15.5 cm (blue for genera, white for species) with typed or handwritten listings of systematic and bibliographic references of species, and also localities and donors of identified brachyurans in the Collections. Although the majority of the specimens entered had been previously registered their numbers are not included. Instead each sample is prefixed with a letter, commencing with 'a'. The upper right-hand corner of each species sheet bears a printed number that identifies a genus or species. These numbers are again entered against an alphabetical list of genera contained in a small notebook. Although there are a few entries in Calman's handwriting, this catalogue does not appear to have been maintained for accessions beyond about 1899 and no additional species are entered after 1910.

CONCLUDING REMARKS

During the previous century the state of the Museum's crustacean collection depended upon the ability, interests and attitudes of the individual curators who had charge of it. William Leach was the first to bring some scientific order to the natural history collections, but for the crustaceans much of this documentation was nullified by his successor John Children who rejected many of Leach's 'new fangled names' as inappropriate and presumably instructed his assistants, George Samouelle and later Adam White, to replace many of Leach's labels. There are now very few labels in the drawers of the dry crustacean collection that may be in Leach's handwriting. It is difficult to make a fair evaluation of Samouelle's contribution as a curator. Much of the available documentary evidence about his workpractice is denigratory and perhaps reflects, in part, the somewhat austere working conditions of his time. By comparison the industrious and conscientious Adam White was to leave the crustacean collections in a state of orderly documentation apparent by the neatly written specimen labels that have survived to this day and the numerous meticulous catalogue entries. Reginald Butler appears to have done very little to the collection as he was, no doubt, fully occupied with the insects. It was under Edward Miers that curation of and research on the Museum's crustacean collections attained a standard of excellence that was not equalled until William Calman took charge of the group some 20 years later. Fortunately he was to be the first of an unbroken line of curators who were allowed to devote their time exclusively to the care of this rich and important research reference collection.

ENDNOTES

(1) Leach, William Elford (1790–1863: Gilbert, 1977). In his early years Leach collected marine specimens in Devonshire, sometimes accompanied by his friend Charles Prideaux of Kingsbridge.

He graduated in medicine at St. Andrew's University at 22 years of age but was intent on a career in general zoology. In 1813 he obtained a post in the Department of Natural History ... at the British Museum (Montagu House). In 1820 or thereabouts he was unable to continue his normal lifestyle. His frequent indispositions led the Trustees to grant him, in 1821, successive periods of leave but his deteriorating health compelled him to resigned his post in 1822.

Leach remained in England for a while but, in the care of his sister Jane, eventually went abroad, living in various parts of southern France and finally Northern Italy where he died of cholera in 1836.

Leach's interest was establishing taxonomic groupings, chiefly of the crustaceans, molluses and insects. On this and other matters he corresponded with Cuvier, Latreille and other french zoologists and appears to have visited the Museum National d'Histoire, Paris, during at least 1815, 1817 and 1821. The names that Leach used for many of his genera and species gave rise to debate and led the Committee of the British Association on the *Revision of Zoological and Botanical Nomenclature* (Strickland et al, 1843) to consider many of Leach's names as 'nonsense names'. However, Knight (1900) convincingly argued that many were derived from classical, biblical and oriental sources. An interesting aspect of Leach's pre-occupation with name derivation is the permutation of the name Caroline or Carolina. At least nine of the crustacean genera that he established in 1818 are anagrams of one or the other name. Smith (1980), suggested that it may have been that of Queen Caroline and that Leach created these anagrams as a sympathetic gesture after the death of her mother, Princess Charlotte in 1817.

(2) The first seventeen parts of this work, published between 1815 and 1820, were written by Leach and illustrated and published by James Sowerby. In the NHM copy the inscription on the wrapper of each part differs from the title page bound with the first part (1815). *Malacostraca Podophthalmata Britanniae* ... is followed (on the wrappers) by ... *or descriptions of the British Species of Crabs, Lobsters, Prawns and of other Malacostraca with Pedunculate Eyes* ... but on the title page is printed ... *or, descriptions of such British species of the Linnean Genus Cancer as have their eyes elevated on footstalks*...

It was the publishers intention to complete the whole work in about nineteen parts, but publication lapsed after Leach's premature retirement. The stock was acquired by Mr. Quaritch (publisher) and the work completed by George Brettingham Sowerby, the final part being issued in 1875.

(3) *Thanks were ordered to be returned for the following Presents ... To Dr Leach for the 9th & 10th numbers of the Zoological Miscellany ... To Dr Leach for a Collection of the larger Crustacea of Great Britain* ... [Trustees Minutes, 12 November 1814: NHM Archives].

(4) The *Zoological Miscellany* was a continuation of the earlier *Naturalist Miscellany* **(5)** and appeared in parts or numbers **(3)** between 1814 and 1817.

(5) The *Naturalist Miscellany* appeared in parts between 1790 and 1810 (Sherborn, 1895). This was the earliest catalogue originating from Montagu House. It appeared monthly and 187 parts were issued. It contained ... *coloured figures of Natural Objects and described immediately from nature* ... that were being acquired by the Museum. Twenty nine species of crustaceans are included in parts spanning the years 1793, 1797–99, 1801–6 and 1810. Only six of these species are brachyuran crabs. Vernacular names are given but details of donors and localities are omitted. The work was compiled by George Shaw and illustrated by R. P. Nodder. The latter artist provided illustrations for the later *Zoological Miscellany* **(4)**.

(6) Montagu, George (1753–1815: Cleevely, 1978). Montagu was usually referred to as 'Colonel Montagu' but this was a courtesy title as he was commissioned as a Lieutenant-Colonel (Wiltshire Regiment of Militia) and remained unpromoted. His interest in natural history seems to have began during his army service in N. America. He was compelled to resign his commission in 1799 after being court-martialled on matters relating to his association with Elizabeth Dorville. Afterwards, both parties became fully involved in natural history and Mrs Dorville illustrated many of his publications. They settled in Kingsbridge, Devon. Throughout his life Montagu collected assiduously and also employed 'his man Gibbs' **(7)** for this purpose.

The Trustees recommended that ... *Colonel Montagu's Collection of British Zoology be purchased under the circumstances mentioned in Dr. Leach' Report* ... [Trustees Minutes, 13 June 1916: NHM Archives]. Although this was the notable collection of British birds, specimens

belonging to other groups were also represented. For example, Leach (1816a) acknowledged specimens of the mud shrimp *Axius stirynchus* from this collection ... *lately purchased by the Trustees* ... [Loc. cit.] and also frequently acknowledged the help of his friend Montagu who sent him specimens. His remarks on the *Galathea spinigera* figured by Sowerby in that work reads ... *Our figure is coloured from the drawing most kindly sent to me by Mrs Dorville who drew it from a living specimen* ... [Loc. cit.].

(7) Mr Gibbs (or Gibbes) was presumably a local Kingsbridge taxidermist and assisted Montagu with collecting specimens. He is referred to as the ... *Colonel's man* ... and ... *the man who stuffed Colonel Montagu's birds*... (Elliot, 1897). His help was acknowledged by James Sowerby who named a fungus after him (Cleevely, 1978) and by Leach (1819: text to Tab. XIX) who used Gibb's name for a spider crab, remarking that the species (*Pisa gibbsii*) ... *was first noticed by Mr Gibbs, employed by Montagu, and is named after that indefatigable and successful collector, by whom the British Fauna has been considerably enriched* ...

(8) Pennant, Thomas (1726–1798). After his death and until 1912 Pennant's collection remained in his residence at Downing Hall, Holywell, Flintshire. In 1912 the collections were donated to the British Museum (Natural History) by the Earl of Denbigh, a relative of Pennant (Smith, 1913). Among this material ... *Five crustacea, probably types of species described by Thomas Pennant in 1777; presented by the Earl of Denbigh, CVO* ... are mentioned as being among these specimens (British Museum, 1913: 154). [See Appendix of this present paper].

In 1952 six additional specimens were received from Mr Guy Wilkins, then on the staff of the Mollusca Section, discovered while curating the collections. These are labelled-*Astacus fluviatilis. Astacus bamffius, Astacus bernhardus, Astacus norvegicus, Astacus strigosus, and ?Atelecyclus septemspinosus*. All are without addition documentation.

(9) Samouelle, George (?-1846: Gilbert, 1977). Samouelle was engaged on 16th March 1821 as a clerk and assistant to work on the entomological collections. He had been employed previously by the publishers, Longmans, and his popular book (Samouelle, 1819) must have counted in his favour when being considered for the post (Gunther, 1975: 55). After some years in office his efficiency was questioned and he was frequently repremanded for the inadequate reports he wrote concerning his work and also for irregularities in attendance. In February 1838 the Keeper, George Childrens, was provoked into admonishing him in no uncertain terms:

Sir,
As head of the Zoological Department, and responsible for the due performance of the duties connected with it, I cannot any longer suffer the entomological branch to be neglected as it has lately been.
If the state of your health be really such as to render you incapable of more active exertion, and to prevent your attending to your duty, as the other assistants in this department do, during the Museum hours from 10 till 4-*and, as at the present moment, even to occasion your absence for whole days together—I shall feel it indispensable to report the fact to the Trustees, and shall suggest that it will be better, in future, to put you on the same footing as Mr George Gray (and for the same reason) and proportion your pay to the time of your actual attendance, at a certain rate per diem. I shall also urge the necessity of another assistant being appointed to the same branch of the department, as the only means by which the arrangment and naming of the collections can be effected.*
I am very sorry to be obliged to come to this decision but I have no alternative-Your note of Tuesday, announcing that you were unwell, only reached me late in the evening of that day-and I should have known nothing of the cause of your absence till than time, had I not previously sent a messenger to enquire into it; and in the interim persons were waiting to consult the entomological cabinets in momentary expectation of your arrival.
Yesterday you continued absent without assigning any futher reason, and today the same-things cannot go on thus, and it is my duty, as is my determination, to take care that they shall not ... [22 February 1838. Letters and Reports: NHM Archives].

Samouelle was suspended from employment in 1838 but re-engaged at a lower salary. He was again suspended for futher misdemeneanours in 1839 and dismissed in 1841. He died in 1846.

(10) Adam White (1817–1879: Gilbert, 1977). White came to London from his home town of Edinburgh at the age of 18 years and with a letter of introduction to Gray. He was appointed to the Zoological Branch of the Department of Natural History of the British Museum in December 1835 and remembered by many for ... *his readiness to assist, and the broad Scotch accent with which his words of sound advice were delivered* ... (Dunning, 1879).

White seems to have set himself the task of cataloguing every arthropod in the collection and overwork may well have been the cause of his retirement through 'mental indisposition' in 1863,

He apparently recovered temporarily but then suffered several relapses. Even as an inmate of one Scottish asylum he edited and contributed to the house journal (McLachlan, 1879).

White's most important contributions to carcinology were: *List of the specimens of Crustacea in the Collections of the British Museum* (White, 1847) and *A popular History of British Crustacea* (White, 1875). He seems to have been the first to apply the suffix **-idae** to designate insect families.

(11) Major General Thomas Hardwicke (1756–1835: Swainson, 1840: 208; Dawson, 1946). Hardwicke served with the East India Company for 45 years. As a devotee to natural history he amassed a large collection of coloured drawings made by native artists. These, along with his manuscripts and specimens, form the 'Hardwicke Bequest' acquired by the British Museum (Natural History). A greater part of the crustacean material is extant and incorporated in the Dry collection.

(12) H.M.S. *Congo* was specifically built and commissioned in 1816 to investigate the upper reaches of the River Congo, West Africa, to discover whether or not it was connected with the River Niger.

John Cranch (1785–1816) **(14)** was appointed as the zoologist. Twenty one of the 56 personnel died from Yellow Fever infection, including Cranch, who was taken ill on the march between Banza (Cooloo) and the Banza Inga and was carried back by natives to the *Congo*. He died on board on 4 September 1816, 31 years of age (Tuckey, 1818).

Extant specimens from this ill-fated expedition were listed by Monod (1970) in his account of Cranch's diary and drawings [see also Appendix of this present paper].

(13) An important collection containing some 32 species of malacostracans, all identified by Richard Owen and collected by F. W. Beechey on H.M.S. *Blossom* (Owen, 1839) was never acquired by the Museum.

Lieut. (later Sir) Edward Belcher (1799–1877) and G. Tradescant Lay (d. 1845) are also acknowledged as collectors of the crustaceans on the *Blossom*. Circumnavigation of the Berhing Strait region was carried out by the ship from 1825–1828. For the voyages of 1826 and 1827 Beechey had been specifically asked to co-operate with the polar expeditions of W. E. Parry and John Franklin. Owen stated that the crustaceans were deposited in the Museum of the Royal College of Surgeons of England (of which he was, at that time, conservator and Hunterian Professor) and also in the the Museum of the Zoological Society of London. In 1845 the Royal College of Surgeons donated 348 specimens to the Britsh Museum (Whitehead, 1969: 166) but apparently none of these were crustaceans. Any *Blossom* specimens were probably destroyed when the College was bombed during May 1941 (Crane, 1975) and no crustaceans were included among the collection from the Zoological Society's Museum in 1853 nor with material purchased from that source in 1855.

(14) Cranch, John (1787–1816: Monod, 1970; Smith, 1980). Cranch was born at Exeter, Devon and died prematurely in September 1816 **(12)**. He became an orphan at an early age, was raised by an uncle and learned the trade of a shoemaker. His interests in natural history brought him under the influence of Colonel Montague **(6)** whom he assisted with the collecting of specimens. He published a number of short articles, two on crustaceans: *Natural History of the Pea Crab* and *Natural History of the Hermit Crab* in *The Weekly Entertainer* for 1811, nos 2 & 4 respectively. Marriage brought him some financial security and he was able to spend more time on his natural history interests. Montagu introduced Cranch to Leach **(1)** and it was through the latter that he met Captain J. K. Tuckey, leader of the *Congo* Expedition. According to White (1847: v) Cranch sold specimens to the British Museum.

(15) H.M.SS *Erebus & Terror* were commissioned for the Antarctic Expedition of 1839–1843. The *Erebus* was commanded by James Clark Ross and the *Terror* by Francis R. M. Crozier. Under the registration number 1844.3 is listed 42 crustaceans, some of which are brachyurans, collected in the New Zealand-Falkland region. The collecting was probably supervised or made by the surgeon and official naturalist on the *Erebus*- Robert McCormick. Other specimens are entered under 1843.70 listed as from Auckland, New Zealand and presented by Lieut. Smith of the same vessel and were ... *caught by towing net within the tropics* ... [note in Entomology Dept. register].

(16) There are two anomalies concerning the published reports of the *Erebus* and *Terror*: (i) White identified the material and in his 1847 publication referred to them as from the ... *Antarctic Exp.*

Presented by the Lords of the Admiralty . . . but without reference to either vessel. Apparently he had illustrations prepared of some species in anticipation of publishing a report, but this was never printed. These illustrations were used by Miers (1874) for his report on *The Zoology of the Voyage of H.M.S. Erebus & Terror* . . . and White's plates were printed with their original names but with a revised nomenclature in the text of the report. (ii) Some of the brachyurans cited in Mier's report came from other collections (eg. the *Xenocarcinus depressus* Cape Howe specimen was purchased from a Mr. Calvert, the *X. tuberculatus* from H.M.S. *Fly* **(17)**, the *Nectocarcinus tuberculatus* from Van Diemen's Land, and the *Cancer novae-zelandiae* from New Zealand were collected by Dr. Andrew Sinclair, R.N.

(17) H.M.S. *Fly*, under command of Captain Francis P. Blackwood surveyed the South-western Pacific from 1841–1846 with the purpose of charting a passage through the Great Barrier Reef. Naturalists on board were zoologist J. W. McGillivray (1822–1867) and geologist J. Beete Jukes (1811–1868).

Forty eight crustaceans from this voyage, collected in the Torres Straits, (registered as 1845.91) and an unspecified number from the Swan River, Port Jackson (1846.89) were presented by J. B. Jukes, (see White, 1847*a*).

(18) H.M.S. *Samarang* was commanded by Capt. Sir Edward Belcher during the coastal surveys of China, Japan, Korea and Borneo from 1843–1846. Arthur Adams (1820–1878) was surgeon naturalist and 270 crustaceans were collected and presented to the Museum by him, registered as 1847.21. [See also **(19)**]

(19) White (1847) lists under *Additional species* over 60 species of crabs as . . . *Presented by Capt. Sir Edw. Belcher, C. B., R. N.* . . but without reference to the *Samarang* The report by Adams & White (1848) omits at least 32 of these species and also includes a number not collected by this vessel (e.g. specimens purchased from Cuming). Additional *Samarang* specimens were described by Miers (1877).

(20) H.M.S. *Rattlesnake*, commanded by Capt. Owen Stanley continued the surveying work of H.M.S. *Fly* in the South western Pacific during 1846–1850 with priority for finding a safe passage through the Torres Strait and Great Barrier Reef. The collections were made by the naturalist specifically appointed, John MacGillivray and also by the ship's assistant surgeon and naturalist, Thomas Henry Huxley (1825–1895). A total of 459 crustaceans are incorporated under numbers 1848.33, 1850.39, 1850.112, 1851.5. 1851.32 and 1851.33, all donated by McGillivray. The first of these (93 specimens) are entered as being from Atlantic, Indian, Australian Seas via Prof. Edwards Forbes (1814–1854: Mills, 1984), indicating that collections were being made on the outward or/and return voyage. *Rattlesnake* specimens were included in the *Alert* **(35)** report by Miers (1881*a*, 1884*a*).

(21) H.M.S. *Herald* worked the Pacific coasts of North and South America during 1845–1847 under the command of Captain Henry Kellett. The ship was accompanied by H.M.S. *Pandora*. Biological collections were made by Kellett and Lieut. James Wood in *Pandora* and presented to the British Museum. However, none of the extant *Herald* crustacean specimens can be assigned to the above period. The *Herald* was then diverted to the Antarctic during 1848 and until 1851 to search for Sir John Franklin's expedition and in 1852 was commissioned by Captain Henry Denham for survey work in the South Western Pacific until 1860. J. W. McGillivray (specifically appointed as naturalist), and M. Rayner (surgeon to the vessel) made the biological collections.

The register entries for 1854.47 and 1855.69 respectively lists 97 and 92 crustaceans collected by MacGillivray. Further crustaceans incorporated under number 1856.33 and entered as . . . *Bought of Cuming in January last or so . . . collected on Voyage of Herald* . . . and under 1856.105 there are 266 specimens from the *Herald* but the collector or donor is not mentioned. Under registration number 1858.172 there are three pages in Adam White's handwriting of *Herald* specimens from S. Pacific localities and collected by F. M. Rayner. The material was reported upon by Miers (see p. 00)

(22) The Leyden Collection/Leyden Museum. White (1847) lists 25 species of decapods from this collection. These were acquired as two consignements. The first, registered as 1844.68 comprise 22 named crab species and 5 macrurans (*Ibacus, Palinurus*). The second, registered as 1845.37 is represented by *Inachus (Macrocheira) kaempferi and 4 small crustaceans in spirit* . . .Both

collection were purchased from Mr. G. A. Frank, an Amsterdam dealer in Natural History.

The Rijksmuseum van Natuurlijke Leiden exchanged duplicate specimens from their collections for those of Frank's. A consignement of these, acquired by Frank in 1840, were sold by him to the British Museum in 1844 and 1845. These represent part of the material reported upon by W. de Haan (1835–1850) and contain many syntypic specimens, (Holthuis, 1967; Holthuis, L. B. & Sakai, K. 1970; Yamaguchi, (in press)).

(23) Bell, Thomas (1792–1880: Plarr, 1930; Chatfield, 1980). A dental surgeon at Guy's Hospital until 1861. He was appointed first Professor of Zoology at King's College in 1836 where he pursued his interests in natural history. His best known contribution to carcinology was *A History of British Stalk-Eyed Crustacea* (1853). This work first appeared as eight separate parts between 1844 and 1852 under the title of *A History of British Crustacea* and these were reprinted in 1853 collectively as a single volume with 'Stalk-eyed' added to the title (Gordon, 1959). Bell died at 'The Wakes' Selborne, that he had purchased from Gilbert White's grandniece..

(24) Spirits of wine as then used for preservation was a distallation of ethyl alcohol produced from fermentation of various grains. The early form of industrial methylated spirit with which Gray experimented was probably a crude composite of ethyl and methyl alcohols and was substituted for spirits of wine in about 1862. In 1871 Gray reported ... *Specimens placed in methylated spirit, the use of which, from its economy, began in 1862, have shown effects which could not have been foreseen prior to the experiment. From that date to 1865, specimens of vertebrate animals, fishes and reptiles, e.g., have become lax, or have lost consistency, and on those which have been longest immersed a deposit of the wood- resins employed in 'methylating' alcohol has accrued upon the surface of the specimens* ... (British Museum, 1872: 23).

(25) Butler, A. G. (1844–1925: Gilbert, 1977). Butler was the son of Thomas Butler, Assistant to Principal Librarian Sir Antonio Panizzi. He was appointed as an Assistant in the B.M. in 1863 and was Assistant Keeper in charge of the Arthropoda from 1879 until 1901 when he retired due to ill health. He worked on a number of orders of insects but is chiefly remembered as a lepidopterist; he had a particular interest in Fabrician material.

(26) *The Linnean Society has presented to the Museum the Banksian Collection of Insects, containing the type specimens, described by Fabricius* ... (British Museum, 1864: 24).

(27) A number of the Banks specimens are sewn onto sheets of gray card covered with white paper (Wagner, 1986, Pl. 1, lower photo). Some are inscribed ... *F* or *Fr* in pencil and, as noted by Whitehead (1969: 177) ... *The style of writing on the cards and the colour of both ink and paper suggest that these are contemporary with the period of the Cook voyages. The specimens may, however, have been duplicates that were once in Kiel and were sent to Banks* ...

(28) The global oceanic investigations made by H.M.S. *Challenger* have been well documented (Spry. 1876; Murray, 1895; Swire, 1938; Moseley, 1944; Linklater, 1972). The brachyuran crabs were described by Miers (1886) who listed over 280 species or varieties, 50 of which were new to science. A not inconsiderable part of the *Challenger* collection was designated as duplicates and transferred from the *Challenger* office in Edinburgh to the British Museum (Natural History) in 1890, to be used for exchange purposes. A major dispersal of *Challenger* specimens, for example, was noted in the minutes of the Standing Committee of the Trustees in July and October 1899 when 1070 and 1092 specimens respectively were designated for sending to various institutions. (Lingwood, 1981: 73) pointed out that at ... *least 21 different institutions received a total of 4000 specimens by this means* ... some representing type material (Wheeler & O'Riordan, 1969)

Handwritten lists of *Challenger* duplicates disseminated to eight institutions are contained in a bound volume in the Library of the Zoology Department and reveals that crustacean specimens were sent to University College Cardiff, Sheffield Public Museum, University College of Sheffield, Perthshire Museum and, by far the largest amount, to University College Dundee. The list of specimens donated to Dundee in 1899 is in the handwriting of W. T. Calman who at that period was an Assistant Lecturer and Demonstrator in the Natural History Department of University College, Dundee, having previously been laboratory assistant to D'Arcy Thompson who had built up a. .. *fine teaching Museum at University College, Dundee* ... (Gordon, 1954). That this list was written on British Museum stationery by Calman suggests that he compiled it during a visit to the Museum in order to select specimens, perhaps under the supervision of Jeffrey Bell.

In 1956 the BMNH acquired a considerable part of the contents of the Dundee University College Museum resulting in the return of *Challenger* material. Of the twelve brachyuran species included in Calman's original list (and approved by the Trustees in October 1899) five are not included in the Report by Miers (1886) and may have been part of the *Occasional collection* (29). Nine of the species on Calman's list are not included in Thompson's 1901 *Catalogue* and were also not among the specimens returned to the BMNH in 1956.

The bulk of the *Challenger* brachyuran material is registered as 1884.31 and additional specimens as 1884.44.

(29) Two catagories of *Challenger* specimens were recognised initially, the *Occasional specimens*—incidental to the purpose of the voyage and those which were essential to its purpose i.e. *Piece justicative* (Lingwood, 1981).

(30) Staff employed in the Zoological Department at Bloomsbury in 1878 at the time of the first major relocation of the Department.

Keeper-Dr Albert Günther; *Assistant Keeper*-Frederick Smith.

First Class Assistants: Arthur Gardener Butler (insects); Edgar Albert Smith (molluscs); Richard Bowdler Sharp (birds).

Second Class Assistants: Charles Owen Waterhouse (insects); Edward John Miers (crustaceans); Stuart Oliver Ridley (sponges and alcyonians); Francis Jeffrey Bell (echinoderms and annulosa).

First Class Attendants: Edward Gerrard; James Ingham; John Saunders; Edward Tugwell Boulton; Robert William Tomlinson.

Second Class Attendants: James West; Samuel Atkinson; James Lewis Rudd; Duncan Mitchie; Charles Chubb.

Duties of the Attendants varied. Much of their time was spent mounting and labelling gallery specimens and helping the senior staff (Assistants). Edward Gerrard was the overall supervisor and conservator of mammals, attended to students of the mammalia and to the packing and unpacking of vertebrate collections. James West mounted and repaired birds for the gallery, cleaned the skins and was also responsible for ... *regulating the outgoing messages of the Department* ... John Saunders worked in the library. Charles Chubb attended to visitors studying birds. One duty shared by all the Attendants was 'watching' when the galleries were surveyed for irregularities of contents or behaviour of visitors. The outcome of this practice was occasionally noted in the Trustees Minutes. For example, the watchfulness of Attendant Duncan Mitchie on one Saturday evening in July 1879 resulted in a young German named Brittermann being apprehended in the act of extracting a glass eye from the stuffed Java Ox in the mammalian saloon. The Trustees (represented by the Principal Librarian) prosecuted and Brittermann was sentenced at Bow Street Court to two months imprisonment, subsequently reduced to one month [Official Documents 1879–1880: NHM Archives].

(31) St. John H. C., (Tizard, 1900), captained H.M.S. *Sylvia* from 1869–1872 and made extensive collections off the coast of Japan and in the Korean Sea during 1870. These were presented via Gwyn Jeffreys (41) and registered as 1800.22, 1878: 11, 1878.29; many brachyurans are included. Miers (1879*b*) reported upon the collections. St. John rose to the rank of Rear Admiral. [Keepers Corresp: NHM Archives].

(32) The Admiralty expedition of 1874–75 to make observation on the Transit of Venus included four naturalists. Three, Dr. I. B. Balfour (1853–1922: botanists and geologist), Mr. George Gulliver (1804–1882: general faunal investigations) and Mr. H. H. Slater (1851–1934: cave explorations and extinct animals) were assigned to Rodriquez; the fourth, the Rev. A. E. Eaton (1845–1929), visited Kerguelen. The ships deployed were H.M.SS *Volgae* and *Supply*. Miers published on some of the specimens collected (see Miers 1875 & 1876, 1879*c*). Only one brachyuran species was collected on Kerguelen but 20 are listed from Rodriquez. The collection is registered as 1876.10. The Royal Society Council directed that ... *complete sets should be reserved for the National Collections, and that the remainder should be distributed to the Museum of the Royal College of Surgeons in London, the Government Museums of Natural History in Edinburgh and Dublin, the University Museums of Oxford and Cambridge, and other Institutions* ... (in Miers, 1879*c*).

(33) H.M.S. *Peterel* was commanded by Commander W. E. Cookson, R. N. and visited the Galapagos Islands, presumably under the orders of the commander of the Pacific Station, Rear

Admiral Hon. A. A. Cochrane, who directed that any collections obtained should be deposited in the British Museum. During the two week visit, in June 1875, landings were made on Charles and Abington Islands and at Tagus and Iguana Coves in the Albemarle Islands. Cookson, assisted by Staff-Surgeon Bett, collected the zoological specimens. The collection is registered as 1876.18 (Miers, 1877).

(34) The *Isbjorn* was a small norwegian cutter commanded by Captain (later Sir) Albert H. Markham who accompanied Sir Henry Gore Booth to the Barent's Sea in 1879. The collection, reported upon by Miers (1881*b*), is registered as 1879.22.

(35) Baron Hermann von Maltzan (1873–1891: Crossé & Fischer, 1892). A German naturalist who, in 1874 collected molluscs in the Mediterranean and in 1879 visited southern Spain and the Algarve region of Portugal. He contracted malaria while collecting in Senegambia in 1880 and which caused his premature death in 1891. His last collecting expeditions were to Crete (1883) and Sardinia and Sicily (1884) when he was accompanied by his wife, an artists and also a devotee to natural history. The large collection of crustaceans purchased included many brachyurans and is registered as 1881.24 (Miers 1881c).

(36) H.M.S. *Alert* was commissioned for surveying work in South American and South Pacific waters during 1878–82. The vessel was commanded initially by Captain G. S. Nares R. N. who was replaced by Captain J. L. P. Maclear in spring of 1879. Extensive biological collections were made under the supervision of Staff Surgeon R. W. Coppinger R. N., scientist on the voyage, and these were presented to the British Museum.

It is interesting to note how quickly these specimens were received by the Museum throughout the voyage. For example, the collections made in the Straits of Magallan to Trinidad Channel region of South America, from January to March 1879, had been received (along with material from some previous stations), identified and incorporated (reg. no. 1879.19) by September of the same year and comprised some 150 specimens representing 34 species.

In addition to these, *Alert* collections were incorporated as follows: 1880.30, 1881.26 (S. American station), 1881.31, 1881.41, 1882.7 (Australian station), 1882.24, 1883.26 (Indian Ocean station). (Miers, 1881a; 1884a; 1885). In the *Alert* report Miers also cited specimens from the *Rattlesnake* and *Herald* **(20)** & **(21)**.

(37) Henderson, John Robert (1863–1925: Calman, 1926). Henderson graduated in medicine at the University of Edinburgh but turned to marine zoology. In 1886 he was appointed Professor of Zoology at Christian College, Madras, India and in 1909 Superintendent of the Madras Museum. Henderson retired to Edinburgh in 1919 and died in 1925. He reported on the *Challenger* anomurans (including the dromiacean crabs) and also published many papers on Indian carcinology (Balss & Gruner, 1961: 1967). He donated specimens to the British Museum (Natural History) during the 1890s including collections made by Francis Day **(56)** and his predecessor at the Madras Museum-Edgar Thurston.

(38) Bate, Charles Spence F. R. S. (1818–1889: G. S. B, 1890). Bate was a dentist of considerable local repute who practiced first at Swansea and then Plymouth where he took over his father's practice. He developed interests in natural history especially the crustaceans. His best known published work, in co-authorship with J. O. Westwood (Hope Professor of Zoology at Oxford University) was *A History of the British Sessile-Eyed Crustacea* (Bate & Westwood, 1861–2, 1868). He published papers on developmental morphology of crustaceans and reported upon the *Challenger* Macrura (Bate, 1888).

(39) *Travailleur*. A French navy paddle steamer suitably modified for marine exploration. The *Travailleur* made at least three voyages. The first in 1880 was southward to the Bay of Biscay and with Gwny Jeffreys and A. M. Norman, **(41)** & **(42)**, aboard as advisers on dredging matters. The second was to the coast of Portugal and into the Mediterranean as far as Corsica, and the third as far south as the Canary Islands (Milne Edwards, 1882; Filhol, 1885).

The vessel carried a number of distinguished french scientists belonging to the *Commission* formed to effect this deep-water exploration and included Alphonse Milne Edwards (1835–1900). During these voyages benthic trawling was carried out at a number of stations. Detailed descriptions of the decapods collected were published by H. Milne Edwards & Bouvier (1900).

(40) *Talisman*. A larger vessel that replaced the *Travailleur* to continue exploratory deep-sea research initiated by the French government. In 1883 the *Talisman*, with A. Milne Edwards and other members of the *Commission* on board, explored the off-shore and coastal waters from Portugal southward to Morocco and returned via the Azores, (H. Milne Edwards & Bouvier, 1900).

In 1899 the British Museum (Natural History) received 89 specimens, (comprising 53 species, 22 of which were brachyurans), from the *Travailleur* and *Talisman* collections. These were acquired as an exchange of specimens with the Museum National D'Histoire Naturelle, Paris. Further specimens were received in 1956 when the BMNH acquired collections from the Museum of University College, Dundee (Thompson, 1901 & **(28)**).

(41) Jeffreys, John Gwyn (1809–1885: Mills, 1978). A Swansea solicitor and later a barrister who in his youth became a devotee to conchology. He eventually retired from the legal profession to write on conchology and to conduct collecting expeditions to the Shetland Islands, west coast of Scotland and the Channel Islands using his brother-in-law's yacht *Osprey* on which he was joined by A. M. Norman **(42)** and others. Jeffreys replaced W. B. Carpenter and C. Wyville Thomson on *Porcupine* **(69)** for part of the second cruise in 1869 and joined the *Valorous* **(53)**, commanded by Capt. Loftus F. Jones (a supply ship to Capt. G. S. Nares Arctic Expedition) and dredged off west Greenland.

There are several entries of specimens collected by these vessels in the *Norman Register* for 1911.11.8. Jeffreys also presented to the BMNH the large collection of crustaceans made by Capt. St. John and from Korean & Japanese waters **(31)**.

(42) Norman, Alfred Merle (1831–1918: Mills, 1980). A clergyman who took up the study of marine biology in the early 1850's and collected in many parts of the British Isles. He participated in Gwyn Jeffrey's **(41)** expeditions to the Shetland Islands and that of the *Travailleur's* **(39)** 1880 voyage to the Bay of Biscay. Norman ... *amassed a collection of invertebrates second to none in private hands in Europe, and became a respected authority on nearly every group of invertebrate animals* ... (Mills, 1980). His collections were purchased by the BMNH and his library donated to the Zoology Department, University of Cambridge.

The *Norman Collection* was purchased in four instalments. The first, in 1898, consisted of over 26,000 specimens; the second, acquired in 1900, included ... *the remainder of the British Echinoderms, 3000 species of Entomostraca, 49 species of Mediterranean Copepoda, 925 microscopic preparations of Entomostraca, and collections of Polychaeta, Tunicata, Mollusca, Crustacea, Anthozoa etc;* ... The third instalment was acquired in 1910 and comprised ... *about 3,290 specimens of sponges (including 195 types and 184 co-types) and of a number of specimens of Hydrozoa, Anthozoa, Crustacea etc* ... The final instalment (1911) comprised ... *chiefly of Mollusca, Crustacea, Polyzoa, etc;* ... (British Museum, 1899: 85; 1901: 98; 1911: 112; 1912: 106). The first purchase included over 1,000 crustaceans, of these 367 were brachyurans from various localities and are registered as 1898.5.7 but the bulk of the decapods were acquired in the third consignment and were incorporated by Calman and Barnett (Calman's Attendant) under the number 1911.11.8. Norman also presented a number of species between 1884 and 1903.

(43) H.M.S. *Nassau* was commanded by Captain R. C. Mayne, R. N., while re-surveying the Straits of Magellan and passage into the Pacific during 1866 and 1869. Dr. R. O. Cunningham (Professor of Natural History, Queen's University Belfast), accompanied the ship to make biological collections (Cunningham, 1871). The crustaceans acquired by the BM are registered as 1869.37.

(44) Indian Museum, Calcutta (sometimes cited as the Calcutta Museum). Between 1879 and 1903 several consignements of crustaceans, that included many brachyurans named by Wood-Mason or by Alcock **(45)** & **(46)** were purchased from or donated by the Indian Museum Trustees.

(45) Wood-Mason, James. Superintendent of the Indian Museum, Calcutta until 1893 when he was medically certificated home but died in transit. He was succeeded by A. W. Alcock **(46)**.

(46) Alcock, Alfred William (1859–1933: Calman et al, 1933). Alcock was appointed Surgeon-Naturalist to the Indian Marine Survey and served on the Royal Indian Survey Ship *Investigator* from November 1888 until 1892 when he was succeeded by A. R. S. Anderson **(47)**. During intervals ashore he worked with Wood-Mason at the Indian Museum. In 1893 Alcock was

appointed Superintendent of the Indian Museum, resigned in 1907, and returned to England to work with Patrick Manson at the London School of Tropical Medicine at the Albert Dock.

(47) Anderson, A. R. S. The Surgeon-Naturalist who succeeded Alcock on *Investigator*. Specimens collected by Anderson and acquired by the British Museum (Natural History) were registered (no. 1886.52) as being purchased from the *Trustees of the Calcutta Museum* **(44)** and were reported upon by J. de Man (1887–8).

(48) Lockington, W. N. was an architect employed by the city of San Francisco but apparently had to ... *look to Nat' Hist. for a living* ... [11 November 1879, Miers letters: NHM Archives]. Lockington seems to have sold his specimens to Edward Gerrard Jr. **(49)**) from whom the BM purchased the identified collections. These were incorporated as 1877.2, 1878.9 and 1879.1.

(49) Gerrard, Edward Jr. A son of the Edward Gerrard (Güther, 1911a) employed by the British Museum and British Museum (Natural History) from 1841–1896. Gerrard appears to have traded first from King's Place, but later became established as a renown natural history dealer at 61 College Place, Camden Town, London where the buisness became the 'clearing house' for worldwide collections obtained by naturalists and safaris. The British Museum obtained (chiefly by purchase) a considerable number of specimens from the firm of Gerrards'. In 1933 the business was divided: the biological supply side moved to Pentonville Road and in 1963 to East Preston, Sussex. The Gerrards at College Place became re-established in Royal College Street as Gerrard (Hire) Ltd.

(50) Smithsonian Insitution, Washington D.C. The earliest collection was received in 1857 (amphipods), but in 1861 the British Museum acquired two important collections. The first (registered as 1861.44) contained over 200 donated species (78 brachyurans) comprising ... *mostly types selected compared and labelled by Wm Stimpson* ... **(51)** [Entry in Entomology Register]. The second collection (reg. no. 1861.45) comprised 55 species (27 brachyurans) purchased from Stimpson (Evans, 1967). In 1880 some 32 species of crustaceans were presented (9 brachyurans) orginating from the United States Fishery Commissioners (reg. as 1880. 26 & 29). In 1890 a total of 48 species were received (as an exchange) that included 10 brachyuran species, all determined by S. I. Smith **(52)**.

(51) Stimpson, William (1832–1872: Mayer, 1918). Stimpson accompanied Professor J. L. R. Agassiz on many collecting expeditions and in 1852 was appointed naturalist to the North Pacific Exploring Expedition. In 1850 he was in charge of the Department of Invertebrates at the Smithsonian Institution. Stimpson also visited England where he did some coastal dredging. Most of the vast collections he amassed throughout his life were sadly destroyed by the great Chicago fire.

(52) Smith, Sidney Irving (1843–1926: Coe, 1932). Professor-Emeritus of comparative anatomy at Yale University and leading authority on marine crustaceans of the American Atlantic.

(53) H.M.S. *Valorous* was a supply vessel to H.M.SS. *Alert* and *Discovery* during the Arctic Expedition of 1875 (Jeffreys, 1876). The ship was commanded by Captain Loftus F. Jones. The scientists on board were J. Gwyn Jeffreys assisted by W. L. Carpenter (W. B. Carpenter's son). Some tow-net samples and several shallow-water dredge samples were obtained from one of the ship's cutters. The crustaceans were entrusted to A.M. Norman **(42)** for identification and eventually acquired by the BMNH in 1881 (registered as 1881.6, and also as 1903.5.20). There was no report published on the collection.

(54) The International Fisheries Exhibition of 1883 was held in the Royal Horticultural Gardens, north of the Natural History Museum, and under the patronage of the Prince of Wales. Albert Günther was one of the vice-presidents and during the period of the exhibition he arranged evening visits to the recently completed and electrically lit Spirit Building of the BMNH.

Francis Day **(56)** wrote to Miers asking if he had found time to examine the stalk-eyed crustaceans on display in the Indian section of the Exhibition remarking that ... *I expect to be in town in about a fortnight and if you would make it convenient to look in before the public are admitted of a morning I would meet you and we could select a complete set for the British Museum ... I propose commencing to dismantle* [the exhibits] *shortly-* ... [October 1883, Miers letters: NHM Archives]. Miers replied that he ... *must refer the matter to Dr. Gunther which I will do on*

the first opportunity . . . and . . . *Dr. Gunther will not have the specs. if the condition is to be added that I work them out* . . . [4 October 1883, Miers letters: NHM Archives]. Nevertheless, the collection was named by Miers and comprised some 57 specimens representing 26 species presented by the Commissioners for the Straits Settlements and registered as 1883.24. A later collection, from the Chinese Court, of 26 specimens comprising 12 species is registered as 1884.2.

(55) Yerbury, John William (1847–1928: Gilbert, 1977). Yerbury was born in Bengal, educated at Wellington College and at Woolwich, commissioned in the Royal Artillery in 1867 and served in various parts of the world until his retiremenement as Lieut. Colonel in 1892. He was stationed for many years in Aden and although his particular interest was ornithology he made general natural history collections. After his retirement he returned to Aden for a few months in 1895. He was an excellent collector and somewhat shy and reserved. Eventually increasing blindness interfered with his work and he was knocked down by a motor car sustaining injuries that caused his premature death.

(56) Day, Francis (1829–1889; Anon, 1889). Day was Deputy Surgeon General of the Indian Medical Service and devoted much of his time to the study of Indian fishes. He was appointed Inspector General of fisheries for the Government of Indian in 1871. His library and manuscripts are deposited in the Cheltenham Public Library.

(57) H.M.S. *Flying Fish* surveyed in far eastern waters and was commanded by Captain J. F. L. P. Maclear from 1883 until the end of 1886. The vessel was ordered home via Christmas Island to collect geological samples for John Murray but biological collections were also made. A few brachyuran species are represented among the crustaceans registered as 1887.10; all are from Christmas Island.

(58) Robillard, Jean Aimé Victor de (?1813–1892: 1892, *Le Vrai Mauricien*, 3 juin. Not seen). Robillard, a native of Mauritius, appears to have been a sugar plantation owner whose business must have failed since he took to collecting and selling natural history specimens to . . . *obtain the necesseries of life* . . . [Günther, Oct. 1878: NHM Archives].

(59) Royal Society of London: 149 crustaceans were included in the large collection from Fernando Noronha made by H. N. Ridley and S. A. Ramage under the direction of the Royal Society of London, (Ridley, 1888). H. N. Ridley was at one time an associate in the Department of Botany of the British Museum and later curator of the Botanic Gardens, Singapore.

(60) The Colonial Exhibition of 1886 was held in South Kensington in the grounds later occupied by the Imperial Institute, i.e. part of the area between the present Natural History Museum and the Albert Hall. Fifty eight crustaceans were purchased from the Commissioners of the New Zealand Court and included 16 brachyuran species (reg. 1886.56).

(61) Seven species of brachyurans are included in the collection registered as 1888.26 and collected by Mr.George A. Ramage, the naturalist employed by the joint Committee of the Royal Society and the British Association for the investigation of the fauna and flora of the Lesser Antilles (Sclater, 1889: 394). Also cited as *West Indian Exploration Committee* (see Pocock, 1893*a*: 677) and *West Indian Commission*.

(62) Sir John Murray (1841–1914: A.E.S. 1915–16). Murray made collections between 1883 and 1894 along the west coast of Scotland in his small steam yacht *Medusa*. Four entries in the crustacean accession register (1887.21; 1894.9.18; 1894.10.4 and 1894.10.8) list material presented by Murray from this locality; these include many brachyurans and must represent at least part of the material obtained during these expeditions.
During 1880 and 1882 he participated in the exploration of the Faroe Channel in H.M.S. *Knight Errant* and H.M.S. *Triton* **(63)** & **(64)**.

John Murray also donated specimens (accessed as 1898.10.31) collected by Mr. C. W. Andrews, (then employed by the Museum's Department of Geology), from Christmas Island, Indian Ocean. Murray had realised the value of the phosphate deposits on the Island and a company was formed to develop these resources. Andrew's, at Murray's expense, carried out the necessary exploratory work (Andrews, C.W. 1900).

(63) The paddle steamer *Knight Errant* was hired by the Admiralty in 1880 to enable Charles Wyville Thomson and Thomas Henry Tizard to make a more thorough investigation of the

Faroe-Shetland Channel to determine the presence of a suspected ridge (later named the Wyville Thomson Ridge). The vessel was commanded by T. H. Tizard and was joined by John Murray. Of the crustacean specimens acquired by the British Museum (Natural History) all, except one sample of amphipods, were registered with the *Norman Collection* **(42)**; only one crab species *(Anamathia carpenteri*, reg. 1911.11.8.384) was represented.

(64) H.M.S. *Triton*, commissioned by T. H. Tizard in 1882 to amplify the investigations carried out in 1880 on the Faroe-Shetland Channel by the *Knight-Errant* **(63)**. John Murray participated in the cruise. The *Triton* was used for surveying work in British waters until 1914. Specimens collected were acquired by the BMNH via the *Norman Collection* **(42)**.

(65) H.M.S. *Rambler* visited the Tizard and Macclesfield Banks, China Seas in 1888–9 to carry out survey work. The ship was commanded by W. Usborne Moore, R.N. and the biological collections were made by P. W. Bassett-Smith the ship's surgeon, who acknowledged the ... *most valuable assistance* ... of Lieut Parry ... *in collecting and packing the specimens* ... Capt. J. J. Walker, F.L.S (Chief Engineer) also assisted (Bassett-Smith, 1894). Specimens collected were donated to the British Museum (Natural History) and registered by Pocock (accession no. 1899.12.17.20) who also reported upon the collection (Pocock, 1890).

(66) H.M.S. *Penguin* surveyed Australian and south western Pacific waters during 1890–1893 and was commanded by Commander W. Usborne Moore and later (1893–1895) by Commander A. F. Balfour. The earliest specimens acquired by the British Museum (Natural History), (registered as 1891.6.20) were collected by the chief engineer J. J. Walker. In 1892 Surgeon P. W. Bassett-Smith had transferred from H.M.S. *Rambler* **(65)** to the *Penguin* in order to continue his sampling of the Macclesfield and Holothuria Banks. In 1893 he was assigned to H.M.S. *Egeria* **(67)** which continued the work of the *Penguin*.
Considerable collections were made by the *Penguin*. The crustaceans were in excess of 1270 specimens of which some 740 were brachyuran crabs. The crustaceans were identified by Pocock and registered by him in several lots between 1892 and 1894) only the stomatopods were written up and published (Pocock,1893).

(67) H.M.S. *Egeria* was under the command of Commander A. M. Field from 1890 until 1894 and surveyed the Macclesfield Bank, China Sea, to complete earlier work by H.M.SS. *Rambler* and *Penguin* **((65)** & **(66))**. P. W. Bassett-Smith transferred to *Egeria* from *Penguin* to make further collections that were acquired by the British Museum (Natural History). The crustaceans from *Egeria* were provisionally identified by Pocock and registered by him as 1893.11.3.

(68) The specimens received on an exchange basis with the Warsaw Museum were chiefly from the collections made by Stolzman and Jelski.
Constantin Jelski (1837–1896: Kozuchowsk, 1961) had studied medicine at Moscow (1853–1856) and natural science at Kiev in 1856, qualifying as a 'non-titled professor' in 1861 and formally graduating through a thesis on malacology in 1862. During 1862 and 1863 he was curator of the zoological collections at Kiev University. In May 1863 he made excursions to Bessarabia, the Black Sea and to Turkey, in 1865–1871 to French Guiana and from 1871–1879 to Peru.

(69) H.M.S. *Porcupine* when under the command of Captain Edward Killiwick Calver, made three cruises in 1869: (i) to the west of Ireland from May until July and under the direction of Gwyn Jeffries **(41)**; (ii) to south-western Ireland from July until August, directed by Wyville Thomson; (iii) in the Faroe-Shetland region from August until September, the scientific direction being shared between W. B. Carpenter and Wyville Thomson.
In 1870 the *Porcupine* visited the Mediterranean, departing from Falmouth in July and returning in October. Gwyn Jeffries directed the scientific work and was assisted by the Swedish naturalist Joshua Lindahl from Falmouth to Gibraltar and by W. B. Carpenter for the work in the Mediterranean. Decapods collected during these cruises were acquired by the British Museum (Natural History) via the *Norman Collection* **(42)**; a few were presented by Carpenter (reg. 1882.14) and the specimens figured by Thomson in his *The Depths of the Sea* (1873) were acquired in 1907 (reg. 1907. 8.28).

(70) Bedford, Francis Perch (1875–1900: Venn, 1940). Bedford was a Scholar of King's College, Cambridge and a researcher specialising in echinoderms. He visited and collected with W. F.

Lanchester (**71**)) in the Straits Settlements during 1900 and after his return died prematurely at the age of 25 in October of that year.

(**71**) Lanchester, William Forster. (1875–1953; Anon.1953). Lanchester was a graduate of King's College, Cambridge and later a Demonstrator in Zoology at University College, Dundee. He collected in the Straits Settlements (Singapore and Malacca) during 1899 accompanied by F. P. Bedford (**70**). The brachyuran crabs of this collection were acquired by the British Museum (Natural History) in 1900 and registered as 1900.10.22 They are represented by 364 specimens comprising some 112 species. The collection was reported upon by Lanchester (1900). Lanchester also donated crustaceans to the BMNH from Malaysia sent to him by R. Shelford (Curator of the Sarawak Museum). These include some 23 species of brachyuran crabs; the collection is registered as 1900.12.1 and was reported upon by Lanchester (Lanchester 1900*a*). Specimens of the *Skeat* Expedition studied by him (Lanchester, 1901) are deposited in the collections of the University Museum of Zoology, Cambridge.

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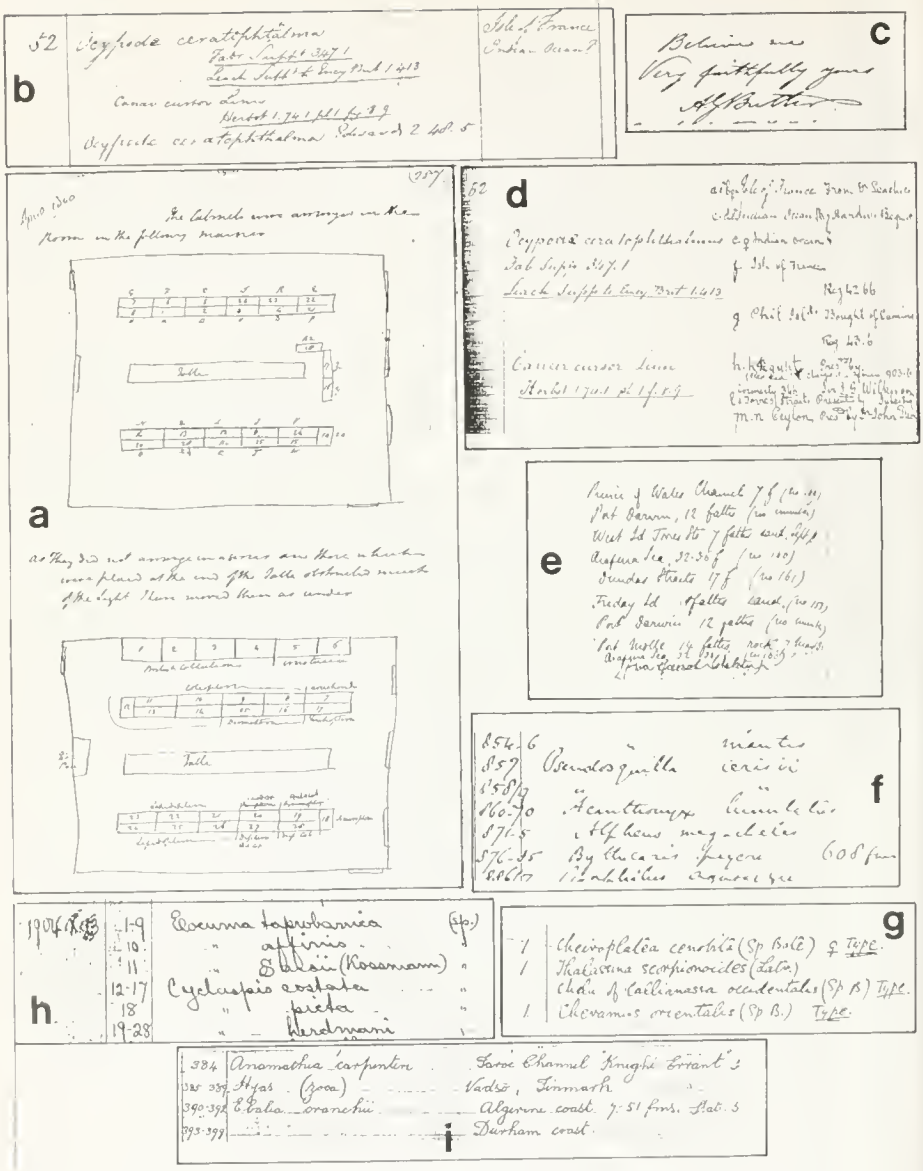

Fig. 1 A. Plan of the entomological cabinets as sketched by Gray in April 1840 and as arranged in the 'Insect Room' at the British Museum, Bloomsbury. Handwritings of: B. George Samouelle (part of page of the bound quarto register). C. Arthur Butler. D (left) an unknown handwriting and (right) Adam White's, (part of page of *Catalogue of Crustacea*). E. Edward Miers. F. Jeffrey Bell. G. Reginald Pocock. H. Thomas Calman. I. William Barnett.

Fig. 2 A. George Samouelle. B. Adam White (age 48), his mother (78) and son (2), Dec. 1865. C. Reginald Gardiner Butler. D. Edward John Miers. E. Reginald Innes Pocock. F. Francis Jeffrey Bell. G. from left to right, Isabella Gordon, Stanley Wells Kemp, William Thomas Calman (at International Congress of Zoology, Lisbon 1938).

APPENDIX

List of the extant specimens of brachyuran crabs comprising *Banks, Leach & Montagu* and *Pennant* specimens, in the collections of The Natural History Museum, London.

Except where stated, these specimens are pinned into cabinet drawers of the Dry Crustacea Collection; with few exceptions they are listed here under currently used names. Measurements are carapace lengths.

Banks specimens

Each specimen has a small printed label inscribed Banks Coll. glued to the carapace or an appendage. A few have a locality label placed nearby, but for the majority there is no information.

Callinectes danae Smith, 1869
1♂ 40.0mm; originally *Callinectes diacantha*; redet. by A. B. Williams.

'*Callinectes hastatus*'
1♂ without carapace.

Carcinus maenas (Linnaeus,1758)
1♂ 51.0mm.

Charybdis (Goniohellenus) truncata (Fabricius, 1798)
1♀ 21.0mm; det. by J. E. Leene.

Charybdis (Goniohellenus) variegata (Fabricius, 1798)
1♂ 22.0mm; det. J. E. Leene.

Corystes cassivelaunus (Pennant, 1777)
2♂♂ 31.0 & 34.0mm.

Cryptopodia fornicata (Fabricius, 1781)
3♀♀ 31.0mm, 35.0mm, 40.0mm; an associated label reads 'Borneo'.

Daira perlata (Herbst, 1790)
1♂ 27.0mm.

Demania splendida Laurie, 1906
1♂ 46.0mm; with attached label inscribed '*Lophoxanthus scaberrimus* (H.M.Edw) A.B'.

Galene bispinosa (Herbst, 1783)
1♂ 39.0mm; associated label inscribed 'China Swatow'.

Halimede ochtodes (Herbst, 1783)
1♂ 25.0mm; labelled '*Polycremnus ochtocles*'.

'*Heteractaea semilanata=globosus* Dana'
1♀ 15.0mm.

Hyas coarctatus Leach, 1815
2♀♀ 19.0mm., 21.0mm.

Inachus phalangium (Fabricius, 1775)
1♀ 21.0mm; labelled '*Inachus dorynchus*'.

Ixa cylindricus (Fabricius, 1777)
1♀ 18.0mm.

Lambrus echinatus Herbst, 1790
1♂ 27.0mm; 1♀ 39.0mm.

Lambrus longispinus Miers, 1879
1♂ 26.0mm.

Leucosia anatum (Herbst, 1783)
Listed as *Leucosia urania* White, 1847: 48. Three specimens labelled 'Banks Coll.' are placed near to labels inscribed '86 Indian Ocean'. (1♀ 36.0mm), '86 China' (1♂ 24.0mm) and '86 E. Indies' (1♂ 24.0mm).

Matuta sp.
1♀ 32.0mm with associated label inscribed 'Shark Bay'; det. as *M.lunaris* (Forskal, 1775) by B. Galil in 1989.

Myomenippe rumphii Fabricius, 1798
1♂ 39.0mm; 1♀ 36.0mm (front damaged).

Orithyia sinica (Linnaeus, 1771)
1♂ 27.0mm; labelled '*Orithyia mamillaris*'.

Ozius tuberculosus H. Milne Edwards, 1834
1♂ 35.0mm; 1♀ 30.0mm (with ?106 on right chela); 1♀ 11.0mm.

Paramithrax peroni H. Milne Edwards, 1834
♂ 70.0mm; an associated label is inscribed 'Bay of Islands, New Zealand' but this locality probably refers to the nearby specimen 'f' listed by White (1847: 7) and presented by Lieut. A. Smith, R.N.

Parthenope macrochelos (Herbst, 1790)
1♀ 34.0mm.

Philyra globulosa H. Milne Edwards, 1837
1♂ 19.0mm; 1♀ 22.0mm (see p. 220).

Planes minutus (Linnaeus, 1758)
1♂ 17.0mm.

Portunus sayi (Gibbes, 1850)
1♀ 39.0mm.

Potamonautes (Potamonautes) perlatus (H. Milne Edwards, 1837)
1♀ 32.0mm.

'*Pseudocarcinus poressa*'
1♂ 32.0mm; 1♀ 35.0mm.

Ruppelloides convexus A. Milne Edwards, 1867
1♀ 19.0mm.

Schizophrys aspera (H. Milne Edwards, 1834)
carapace only 35.0mm; an associated label reads 'Java Seas'.

Varuna litterata (Fabricius, 1798)
1♀ 40.0mm; an associated label reads 'Eastern Seas'.

Zozymus aeneus (Linnaeus, 1758)
Four specimens are associated with above name label. 1♂ 46.0mm (also labelled '*Lophoxanthus scaberrimus* H. Milne Edwards A.B'); 1♂ 35.0mm; 2♀♀ 37.0mm, 41.0mm (also labelled '*Demania splendida* Laurie') in W. T. Calman's handwriting.

Portunidae undetermined
2♂♂ 19.0mm & 29.0mm.

Callinectes sp.
1 ♀ 38.0mm; near to label inscribed '*C.diacanthus*'.

'*Neptunus diacanthus*'
1 ♂ 60.0mm also placed near the above label.

Each of the following specimens is sewn to a sheet of grey card covered with heavy white paper (see Wagner, 1986, Pl. I). The species name is written in ink and the initial 'F' is inscribed in pencil on some. (See Whitehead 1969: 117–8 for remarks on these).

Conchaecetes artificiosus (Fabricius, 1778)
2♂ ♂ 24.0mm; labelled '*Cancer artificiosus* Dald'.

Doclea muricata (Fabricius, 1787)
Five specimens labelled: (i) '*Cancer muricatus* Mas.' 'F', without carapace, sex not det; (ii) ♂ 23.0mm; (iii) '*Cancer hybridus* Mas' ♂ 37.0mm; (iv) '*Cancer hybridus hirsutus* per Collectorem Detritus Mas' 'Dald' ♂ 41.0mm; (v) unsexed, prob a male 39.0mm not inscribed.

Doclea ovis (Herbst, 1788)
Three specimens labelled: (i) '*Cancer ovis* foem.' 'Dald' ♀ 47.0mm; (ii) '*Cancer ovis* foem.' 'Daldorff' 'F' ♀ 46.0mm; (iii) '*Cancer ovis hirsutus* per Collectorum detritus' 'F' ♂ 42.0mm. The latter specimen has an associated printed label '*Doclea ovis* Penang'. Wagner (1986: 897) suggested the locality may be Bay of Bengal, possibly Tranquebar, but did not qualify this opinion.

Dorippe quadridens (Fabricius, 1798)
Three specimens labelled: (i) '*Cancer fallax* foem' ♀ 29.0mm; (ii) '*D.nodulosa*' 'F' ♂ 30.0mm; (iii) '*Cancer fallax* Mas.' 'Dald' ♂ 29.0mm; all redet. by R. B. Manning.

Dorippoides facchino (Herbst, 1782)
♂ 22.0mm; labelled '*Cancer polyphylax callidus* Mas', redet. by R. B. Manning.

'*Egeria arachnoides*'
Two specimens originally as: (i) '*Cancer rostrata* foem' ♀ 25.0mm; (ii) '*Cancer rostratus* Mas.' 'S.M. 76' ♂ 20.0mm.

Hyastenus diacanthus (de Haan, 1839)
♀ 50.0mm not inscribed.

Leucosia craniolaris (Linnaeus, 1767)
♂ 27.0mm; inscribed only with 'mas' and 'F'.

Neodorippe callida (Fabricius, 1793)
♀ 15.0mm; labelled '*Cancer astutus*' 'F', redet. by R. B. Manning.

Leach and Montagu specimens

A number of these specimens have an associated small label with a thick black margin. All bear the words *Mus. Leach* with additional brief locality details and donor. The identical handwriting on all these labels has not been identified.

Acanthonyx lunulatus (Risso, 1816)
[*Acanthonyx lunulatus:* White, 1847:11]
White (1847) lists specimens **a-c** from Sicily, Leach collection and **d, e** from Nice.

Extant Leach material, registration no. **380**, comprise: **b** ♀ 15.0mm; **c** ♂ 19.0mm (with *Mus. Leach* label attached); **d** ♀ 17.0mm (with *Mus. Leach* label) **e** ♂ 25.0mm. For **a** the label is present but not the specimen and there are two additional specimens bearing a label inscribed 'Sicily'—♀ 11.0mm & ♂ 15.0mm, both without numbers.

Achaeus cranchii Leach, 1817b

[*Achaeus cranchii* Leach, 1817*b*: text to & Tab XXIIc; White, 1847: 2]

Leach (1817b) cited a single female from Falmouth obtained by J. Cranch, White (1847) lists specimen **a** from . . . *Falmouth Bay. From Mr Cranch's collection.*

The extant specimen, registration no. **246**, is the ♀ holotype, 9.5mm

Aethra scruposa (Linnaeus, 1764)

[*Oethra scruposa:* White, 1847: 13]

White (1847) lists specimens **a & b** from Isle of France, Leach collection.

Extant material, registered as no. **35**, comprise: **a** ♂ 31.0mm; **b** ♂ 60.0mm.

Aratus pisonii (H. Milne Edwards, 1837)

[*Sesarma pisonii*: White, 1847: 38]

White (1847) lists specimen **a** from Jamaica, Leach collection. This is a ♀ 25.0mm, registered as no. **356**.

Arcania erinaceus (Fabricius, 1798)

[*Arcania crinaceus*: Leach, 1817*a*: 24; White, 1847: 50]

Leach (1817) cites . . . *oceano Indico* . . . and White (1847) lists specimens **a & b** from the Indian Ocean

Extant material, registered as no. **90**, comprise: **a** ♂ 20.0mm; **b** ♀ 19.0mm.

Arcania septemspinosa (Fabricius, 1798)

[*Iphis septemspinosa:* Leach, 1817*a*: 25; White, 1847: 51]

Leach (1817*a*) cites . . . *mari Indico* . . . and White (1847) lists specimens **b & c** from the Leach collection but without locality.

Extant material, registered as no. **525**, comprise: **b** ?♂ 18.5mm and **c** ?♀ 25.0mm.

Atelecyclus rotundatus (Olivi, 1792)

[*Atelecyclus septemdentatus* Leach, 1814*a*: 430; White, 1847: 51; *Atelecyclus Hippa septemdentatus* Montagu, 1813: 1, Tab.1, fig. 1; *Atelecyclus heterodon* Leach, 1815*b*: text to & Tab. 11]

Leach (1814) cites . . . *S. coast of Devon* . . . (Montagu collected), and . . . *Kingsbridge* . . . (Cranch collected); he also examined a young female from Bell Rock received from Stevenson. Leach (1815*b*) also mentions specimens from Prideaux. White (1847) lists specimens **a-e** young from Bell Rock, Scotland, **f-k** Devon, from Montagu & Leach collection. Among this latter material is a ♂ measuring one and one quarter inches in diameter (33.30mm). Although unlabelled, this specimen is of the size mentioned by Montagu (1813) and may be the specimen figured in Tab 1, fig. 1.

Extant material (in addition to the male mentioned above) is registered as no. **225** and comprise: **a** juv. 3.0mm; **b** juv. 2.5mm; **c** juv. 2.3mm; **e** juv. 7.0mm all from Bell Rock, Scotland and presented by Stevenson; **f** ♂ 24mm; **g** ♂ 29mm; **j** ♀ 28mm; **k** ♀ 22mm all from Devon.

Atelecyclus undecimdentatus (Herbst, 1783)

[*Atelecyclus olivii* Leach MSS; *Atelecyclus rotundatus* White, 1847: 51]

White (1847) lists specimens from the Mediterranean as **a, b** males, and **c, d** females all from Leach collection. Three females and three males from this locality, but unlettered, are present in the Dry Collection. These are probably the specimens listed by White.

Extant material, registered as no. **10**, comprise: 3♀♀ 25.0mm., 29.0mm., 34.0mm; 3♂♂ 26.0mm., 31.0mm., 34.0mm

Atergatis roseus Rüppell 1830

[*Atergatis roseus:* White, 1847: 14]

White (1847) lists specimens **a & b** from the Red Sea, Leach collection.

Extant material, registered as no. **582**, purchased at Steven's sale, comprise: **a** ♂ 20.0mm; **b** ♂ 40.0mm.

Bathynectes longipes (Risso, 1816)

[*Portunus longipes*: White, 1847: 26; Leach, 1875, text to and Tab IXA]

White (1847) lists specimens **a & b** from Nice, presented by M. Desmarest and in the register Leach's name is inserted against this entry. Leach (1875) cites . . . *Mediterranean* . . . as a locality

and also remarks . . . *tardly discovered as an inhabitant of our shores*. . . . The specimens, from Nice donated by Desmarest, registered as no. **425**, comprise: **a** ♂ 14.5mm; **b** ♀ 17.0mm

Brachynotus sextendatus (Risso, 1826)

[*Spinola & Shurebus genoensis* Leach MSS; *Brachynotus sextendatus*, White, 1847: 40]

White (1847) lists specimens **a-d** from Genoa, Leach collection. These specimens, registered as no. **453**, but without attached letters, comprise: ♂ 12.0mm; 2♀♀ 12.0mm (with a nearby label inscribed '*Shurebus genoensis* Leach'); ♀ 10.0mm.

Calappa calappa (Linnaeus, 1758)

[*Camara calappa*: White, 1847: 44]

White (1847) lists specimen **a** from Isle of France, Leach collection.

This is represented by a ♂ 79.0mm, registered as no. **38a**.

Callinectes gladiator Benedict, 1893

[*Lupa* (part) Leach, 1818:413; *Lupa smythiana* Leach MSS; *Neptunus sanguinolentus:* White, 1847: 27; *Callinectes gladiator*: Rathbun, 1897: 150; Monod, 1970: 66]

Leach (1818) cites '. . . *three new species* . . .'; White (1847) lists specimens **d, e** from West coast of Africa (Congo Expedition).

Extant material, all without registration numbers, comprise: ♂ 14.0mm (in Alcohol Collection), ♀ 27.0mm (in Dry Collection). The dry specimen bears a *Mus. Leach* label inscribed 'Congo Expedition, J. Cranch' and another in Rathbun's handwriting '*Callinectes larvatus* Ord. probably= *Neptunus marginatus* A. M. Edw.' These specimens were redetermined as *C. gladiator* by A. B. Williams along with a third specimen, a juv. 15.0mm which has an adjacent label inscribed '*smythiana* Leach 22'. This number has 'Conge Expedition. J. Cranch', entered against it in the register.

Cancer pagurus Linnaeus, 1758

[*Cancer pagurus:* Leach, 1814*a*: 391; White, 1847: 20]

Leach (1814) does not cite particular localities in any of his publications. White (1847) lists specimens **a-k** from Britain, Montagu & Leach Collections.

Extant material, registered as no. **31**, comprise: **a** ♂ 4.5mm; **c** ♂ 6.0mm; **e** ♂ 23.5mm; **h** ♂ 14.5mm. A small unlabelled male of 6.0mm among this material may represent **b**.

Carcinus maenas (Linnaeus, 1758)

[*Carcinus maenas:* Leach, 1814*a*: 390; Leach, 1816*a*, text to & Tab. V; White, 1847: 23]

Leach (1814*a*) does not cite specific material, localities or donors. White, (1847) lists specimens **a-s** from Sandgate, Kent but without additional information. Leach collected at or near Sandgate and these specimens are almost certainly part of the Leach material. They are juveniles and sexes have not been determined.

Extant material, registered as no. **12**, comprise: **a** 2.0mm; **b** 3.0mm; **c** 4.0mm; **d** 5.0mm; **e** 4.5mm; **f** 7.0mm; **g** 9.0mm; **h** 9.0mm; **i** 10.0mm; ; **k** 13.0mm; **l** 6.0mm; **m** 11.0mm; **n** 14.0mm; **o** 18.0mm; **p** 16mm.

Corystes cassivelaunus (Pennant, 1777)

[*Cancer cassivelaunus* Pennant, 1777: 6, Tab. 7; Leach, 1814*a*: 395; Leach, 1815*b*, text to & Tab. I; White, 1847:52]

Pennant (1777) cites . . . *Holyhead and Red Wharf* . . ., Anglesey as localities. His material is no longer extant. Leach (1814*a*) does not mention a locality for the British Isles nor donors or collectors. White (1847: 53) gives . . . *England* . . . as the locality and lists specimens **a & h** from Montagu and **c & d** from Montagu & Leach Collection.

Extant material, registered as no. **8**, comprise: **a** ♂ 17mm; **b** ♂ 21mm; **c** ♂ 26mm; **f** ♀ 32mm; **g** ♀ 20mm; **h** ♀ 24mm.

Doclea rissonii Leach 1815a

[*Doclea rissonii* Leach, 1815*a*: 42, Pl. 47; White, 1847: 3; Wagner, 1986: 904]

Leach (1815*a*) does not give a locality. White (1847) lists specimen **a** from the Leach collection. This is the holotype ♀ 36.0mm, registered as no. **81**.

Dromia personatus (Linnaeus, 1758)

[*Dromia mediterranea* Anon, 1825: 419; Leach, 1875, text to & Tab. XXIVA; *Dromia vulgaris*-White, 1847: 55; White, 1850: 23]

The specimen from Billingsgate market (see Anon, 1825), and the one from Penzance (see Leach, 1875), are no longer in the Collections. The absence of the first mentioned had been noted by Miers during 1874 as a pencilled entry inscribed in the NHM Crustacea Section's copy of White's 1850 *List of the Specimens of British Animals*. White (1847) lists the Leach specimens as **a-c**, Mediterranean.

Only two of these have been found among the present material, they are registered as no. **65** and comprise: **b** ♂ 37.0mm; **c** ♂ 60.0mm. A ♂ 32.00mm has an adjacent *Mus. Leach* label inscribed 'Dromia mediterranea Mediterranean Sea W. Swainson Esq. Dr. Shuter . . . ' This also bears a label written by Isabella Gordon in 1954 designating the specimen as the type of *D. mediterranea*; it is registered as no 67.

Dromidia hirsutissima (Lamarck, 1818)

[*Dromia hirsutissima:* White, 1847: 55]

White (1847) lists specimens **a-c** from Cape of Good Hope, Leach Collection.

Extant material, registered as no. **66**, comprise: **a** ♂ 29.0mm; **b** ♀ 32.0mm; **c** ♂ 17.0mm. This last specimen has an associated *Mus. Leach* label inscribed 'Dromia hirsutissima Cape of Good Hope . . .'

Ebalia cranchii Leach, 1817b

[*Ebalia cranchii* Leach, 1817*b*: Text to & Tab. XXV, figs 7–11; Leach 1817*a*: 20; White, 1847: 49; Forest & Gordon, 1968: 329; Christiansen, 1969: 31]

Leach (1817) gives Plymouth, Cranch collected and Sound of Plymouth, Prideaux collected and who . . . *has supplied my collection with a complete series*. White (1847) lists specimens **a-k** from Leach and Montagu collections.

Extant material, registered as no. **250**, comprise: **c** ♂ juv. 5.0mm; **d** ♂ juv. 4.0m; **e** ♂ 10.0mm; **f** ♂ 11.0mm; **g** ♂ 11.0mm (lectotype selected by Forest & Gordon, 1968); **h** ♂ 12.50mm; **j** ♀ 7.50mm; **k** ♀ 10.0mm (all labelled paralectotypes).

Ebalia tuberosa (Pennant, 1777)

[*Cancer tuberosus* Pennant, 1373: 8, Pl. 9A, fig. 19; *Ebalia pennantii* Leach, 1817*b*: text to & Tab. XXV, figs 1–6; Leach, 1817*a*: 19; *Ebalia tuberosa*: White, 1847: 50]

Although Pennant (1777) does not give a locality, his specimen came from the Portland cabinet and therefore probably from Weymouth. Leach (1817) cites . . . *off the Dentridge, near the Saltstone, in the Estuary of Kingsbridge* . . . as the source of his material and White (1847) lists specimens **a-k** from Kingsbridge, Leach & Montagu collections.

Extant material, all now transferred from the Dry to Alcohol Collection, registered as no. **249**, comprise: **a** ♂ 3.0mm; **b** ♂ 3.0mm; **c** ♂ 3.50mm; **d** ♂ 4.50mm; **e** ♀ 7.0mm; **f** ♂ 9.0mm; **g** ♂ 10.0mm; **h** ♂ 11.0mm; **j** ♀ 13.0mm; **k** ♀ 14.0mm.

Ebalia tumefacta (Montagu, 1808)

[*Cancer tumefactus* Montagu, 1808: 86; *Ebalia bryerii* Leach, 1817*b*: text to & Tab. XXV, figs 12–13; Leach, 1817*a*: 20; *Ebalia tumefacta*: White, 1847: 49; Forest & Gordon, 1968: 335; Christiansen, 1969: 29]

Montagu (1808) gives Weymouth, collected by Mr Bryer as the source of his *C.tumefactus* material. Leach (1817*b*) cites . . . *Sound of Plymouth* . . . for his specimens of *E.bryerii*, obtained from Prideaux. White (1847) lists as *E.tumefacta* specimens **a-k** from Plymouth Sound, Leach & Montagu collections.

Extant material, comprise three specimens from Weymouth, registered as no. **251**, all now transferred from the Dry to the Alcohol Collection: **a** ♂ 10.0mm; **b** ♀ 8.0mm (labelled paralectotypes); **c** ♀ 12.0mm (labelled lectotype by Gordon & Forest in 1961). There is also a ♀ 11.0mm labelled by White 'Plymouth Sound 251' but unlettered. Only specimens **a-c** are entered in the register.

Elamena mathaei (Desmarest, 1825)

[*Hymenosoma mirabile* Leach MSS; *Elamena mathaei*: White, 1847: 33]

White (1847) lists specimen a Isle of France, M. Matthieu collection. This specimen, registered as no. **483**, is a ♂ 7.50mm.

Eurynome aspera (Pennant, 1777)

[*Cancer asper* Pennant, 1777: 18, Pl. IX A. 20; *Eurynome aspera* Leach, 1814*a*: 431; Leach, 1815*b*: text to and Tab. XVII; White, 1847: 11]

Pennant (1777) does not mention a locality. Leach (1815*b*) lists Dorset, Devon and Cornwall and also specimens from Plymouth Sound sent to him by Prideaux. White (1847) lists specimens **a-g** from Plymouth Sound and **h-o**; he also noted specimen **h** as the one figured by Leach on Tab. XVII, as fig. 3. Specimen **a** was destroyed according to a note in the register by E. J. Miers.

Extant material, registered as no. **240** comprise: **b** ♂ 6.5mm; **c** ♂ 6.5mm; **d** ♂ 12.5mm; **e** ♂ 11.5mm; **g** ♂ 23mm; **h** ♀ 18mm; **i** ♀ 18mm; **k** ♀ 15mm; **l** ♀ 14.5mm; **m** ♀ 10mm; **n** ♀ 8.5mm; **o** ♀, 8.0mm.

Gecarcinus ruricola (Linnaeus, 1758)

[*Gecarcinus ruricola* Leach, 1815: 322; White, 1847: 32]

White (1847) lists specimens **a-d** from Jamaica. These may have been the specimens cited by Leach (1815), obtained from Banks.

A ♂ 57.0mm in the Dry Collection has nearby labels inscribed 'ruricola Leach 4' and 'Jamaica' but there is no additional information. However, next to this is another male measuring 51.0mm and bearing indecipherable numbers or letters on the carapace. This may be the Banksian rather than the registered specimen.

Goneplax angulata Pennant, 1777

[*Cancer angulatus* Pennant, 1777: 7, Pl. 5, fig. 10; *Ocypode angulata* Leach, 1814a: 393; *Goneplax angulata* Leach, 1814a: 430; *Goneplax bispinosa* Leach, 1815: 323; Leach, 1816a: text to & Tab. XIII; *Gonoplax angulata* White, 1847: 37]

Pennant (1777) gives Weymouth as the locality. Leach (1814a) cites material from ... *Salcombe Bay, Devonshire* ... collected by Montagu and later (Leach, 1816a text to Tab. XIII) from ... *Kingsbridge estuary, Devon and Sound of Plymouth* ... He also mentions specimens collected by Prideaux and Cranch. White (1847) lists specimens **a-g** from Plymouth Sound, Montagu & Leach collections and **h-j** as ... *male and female (var.)* ... but without additional information.

Extant material, registered as no. **54**, comprise: **a** ♂ 14mm; **b** ♂ 15mm; **c** ♂ 20mm; **d** ♂ 22mm; **f** ♂ 24mm; **g** ♀ 16mm; **h-j** varieties are without additional information, they are not listed here.

Goniopsis cruentata (Latreille, 1803)

[*Goniopsis ruricola* White, 1847: 40]

White (1847) lists specimen a from Brazil- Leach collection, and **b, c**- presented by Lord Stuart de Rothesay.

A ♂ 43.0mm, registered as no. **455a** is probably the Leach specimen; **b** and **c** have not been found.

Hepatus princeps (Herbst, 1785)

[*Hapatus angustatus*, White, 1847: 46]

White (1847) lists as Leach collection specimens **c-e**, from S. America.

Extant material, registered as no. **33**, comprise: **c** ♂ 55.0mm; **d** ♀ 45.0mm.

Homola barbata (Fabricius, 1793)

[*Homola spinifrons* Leach, 1815: 324; Leach, 1815*a*: 82, fig. 88; *Homola barbata*, White, 1847: 55]

Leach (1815, 1815*a*) cites ... *British Museum* ... but without a locality. White (1847) lists specimen **a**, **b**, Bay of Naples, presented by Wm. Swainson.

Two specimens in the Dry Collection have an associated *Mus. Leach* label inscribed '*Thelxiope spinifrons* Bay of Naples, W. Swainson Esq ...'. These are registered as no. **68** and comprise: **a** ♀ 32.0mm; **b** ♀ 31.0mm.

Hyas araneus (Linnaeus, 1758)

[*Maia araneus* Leach, 1814*a*: 394; *Hyas araneus* Leach, 1814*a*: 431; 1815: 328; Leach, 1816*a*: text to & Tab. XXIA; White, 1847: 5]

Leach (1814) gives European Seas as the locality and (Leach, 1815) ... *mari Scotico vulgatissime, in mari Angliae rarior* ... and later (Leach, 1816a) lists ... *Scotland* ... (near Montrose observed by Mr. Milne), ... *Kent* ... (near Sandgate, collected by himself) and ... *Devonshire* ... (rare).

White (1847) cites ... *Britain* ... for specimens **a-k** but without additional information. The register entry for no. 241 **a-f** & **g-k** is given as *coasts of Scotland and Kent*. These are probably Leach specimens but it is not possible to assign any to particular localities.

Extant material, registered as no. **241** comprise: **a** ♂ 14.0mm; **b** ♂ 25.5mm; **c** ♂ 33.5mm; **d** ♂ 42.0mm; **h** ♀ 33.0mm; **j** ♀ 26.0mm; **k** ♀ 18.5mm.

Hyas coarctatus Leach, 1815

[*Hyas coarctatus* Leach, 1815: 329; Leach, 1816*a*: text to & Tab. XXIB; White, 1847: 6; Christiansen, 1969: 118]

Leach (1815) cites ... *Frith of Forth, Plymouth Sound et Salcombe* ... as localities and later (Leach, 1816*a*) ... *Firth of Forth* ..., southern coast of Devon and near Sandgate Kent. White (1847) lists specimens **a-p** from Frith of Forth, Devon & Kent. All the present material is incorporated collectively under these localities.

Extant material, registered as no. **242**, comprise: **a** juv. 4.0mm; **b** ?♀ 6.5mm; **c** ?♀ 9.0mm; **d** ♂ 13.5mm; **e** ♂ 28.0mm; **f** ♂ 20.0mm; **g** ♀ 20.5mm; **h** ♀ 31.5mm (designated as lectotype by I. Gordon); **i** ♀ 27.0mm; **k** ♀ 24.0mm; **l** ♀ 12.5mm; **m** juv. 3.50mm; **n** juv. 4.50mm; **o** juv. 4.5mm; **p** juv. 6.0mm.

Ilia nucleus (Linnaeus, 1758)

[*Ilia nucleus* Leach, 1817*a*: 24; White, 1847: 49]

Leach (1817) gives Mediterranean as the locality of his material. White (1847) lists specimens **b & c** from that region.

Only one specimen, ♂ 25.0mm inscribed '87c' on its sternum, can be identified as a Leach specimen.

Inachus dorsettensis (Pennant, 1777)

[*Cancer dorsettensis* Pennant, 1777: 8, Pl. 9A, fig. 18; *Inachus dorsettensis* Leach 1814a: 431; Leach, 1817b: text to & Tab. XXII, figs 1-6; White, 1847: 2]

Pennant (1777) gaves Weymouth as the locality. Leach (1814a) cites ... *western coasts of England* ... and later (Leach, 1817b) ... *Devonshire coasts* ... but without additional information. White (1847) lists specimens **a-h** from Devon, Montagu collection, and **j-l** carapaces, Leach collection.

Extant specimens, registered as no. **243**, comprise: **a** juv. 5.2mm; **b** ♂ 14.0mm; **c** ♂ 12.0mm; **d** ♂ 27.0mm; **e** ♀ 17.0mm; **f** ♀ 19.0mm; **g** ♀ 22.0mm; **h** ♀ 24.0mm.

Inachus leptochirus Leach, 1817

[*Inachus leptochirus* Leach, 1817*b*: text to and Tab. XXIIB; White, 1847: 3]

Leach (1817*b*) cites ... *western coast of Devon or Cornwall* ... (Cranch collected) and ... *Bigbury Bay* ... (Prideaux collected) as localities but White (1847) list specimens **a-c** from Devon, collection of Col. Montagu. The register entry is given as **a-b** W. coast of Devon or Cornwall; **c-f** are without locality entries.

Extant material, registered as no. 245, comprise: **a** ♂ 39.5mm (lectotype selected by I. Gordon); **b** ♂ 21.0mm; **c** ♀ 21.0mm.

Inachus phalangium (Fabricius, 1775)

[*Inachus dorynchus* Leach, 1814*a*: 431; Leach, 1817b: text to & Tab XXII, figs 7 & 8; *Inachus dorhynchus* White, 1847: 3]

Leach (1814a) cites ... *Kingsbridge Estuary* ... (Prideaux and Cranch collected). White (1847) lists specimens **a-f** Devon, Leach's collection. The register entry is given as Devon (Salcombe Estuary).

Extant material, registered as no. **244** comprise: **a** ♂ 11.5mm: **c** ♂ 12.0mm; **d** ?♂ 5.0mm; **e** ♂ 22mm; **f** ♂ 21.0mm.

Ixa cylindricus (Fabricius, 1777)

[*Ixa cylindrus* Leach, 1815: 334; *Ixa canaliculata* Leach, 1817*a*: 26; *Ixa cylindrica*, White, 1847: 50]

Leach (1815, 1817*a*) cites ... *mari Indico* ... as the locality and White (1847) lists specimen **a** from India but without additional information. A ♀ 17.0mm, registered as no. **91a**, Indian Ocean, may represent the Leach specimen.

Ixa inermis Leach, 1817*a*

[*Ixa inermis* Leach, 1817*a*: 26 fig. 129, 2; White, 1847: 50]

Leach (1817*a*) states . . . *Communicavit Dom. Dufresne* . . . and White (1847) mentions specimen **a** from the Leach collection, but without additional information.

A ♂ 20.0mm, inscribed with registration no. **94a**, corresponds exactly in size with Leach's figure and is considered the holotype.

Leucosia craniolaris (Linnaeus, 1767)

[*Leucosia craniolaris*, Leach, 1817*a*: 21; White, 1847: 48]

Leach (1817*a*) cites a male from . . . *Indiae mari* . . . in . . . *Mus. Linn. Soc.*. White (1847) lists specimens **a**,**b** from Tranquebar. A ♂ 21.0mm, registered as no. **85** may represent the Leach specimen.

Leucosia anatum (Herbst, 1801)

[*Leucosia urania* Leach, 1817*a*: 21; White, 1847: 48]

Leach (1817*a*) cites a female from . . . *Oceano Indico* . . . in . . . *Mus. Britain. Soc. Linn* . . . donated by . . . *Hardwicke*. White, 1847 lists specimen **a** male and **b** female from the East Indies. Both are registered as no. **86.** The Leach specimen is probably **b**, (a ♀ 32.0mm).

Libinia emarginata Leach

[*Libinia emarginata* Leach, 1815*a*: 130; White, 1847: 4]

Leach (1815*a*) states . . . *there is a very fine specimen preserved in the British Museum*. This is listed as **a** by White (1847). It is a ♂ 68.0mm, registered as no. **316** and must be considered the holotype.

Liocarcinus arcuatus Leach, 1814*a*

[*Portunus arcuatus* Leach, 1814*a*: 390; Leach, 1816*a*: text to & Tab. VII, (not VIII) figs 1–2 ; *Portunus emarginatus* Leach, 1814*a*: 390; Leach, 1816*a*: Tab. VII, figs 3–4; *Portunus rondeletii* White, 1847: 25]

Leach (1814*a*) cites, for *Portunus arcuatus*, a male from . . . *Mus. Sowerby, Leach. The female has not occurred* . . . and later (Leach, 1816*a*) . . . *northern and western coasts of England* . . . The Sowerby specimen has not been found among the Leach material. For *P. emarginatus* the locality . . . *Torcross* . . . is cited by Leach (1814*a*) and later (Leach, 1816*a*) . . . *South-Western coast of Devon* . . . for specimens received from Mr Gibbs. White (1847) lists specimen **a** from Nice, Desmarest presented, **b** from Sicily, and **e** from S.W. coast of Devon. All these are Leach specimens according to the register.

Extant specimens, registered as no. **424** comprise: **a** ♀ 15.5mm from Nice, donated by Desmarest; **b** ♂ 24.5mm from Sicily donated by Swainson. The locality label for *P.emarginatus* Leach reads 'S.W. coast of Devon'. This is probably the specimen donated by Gibbs. It is registered as no. **230 e** and is a ♀ 26.5mm.

Liocarcinus corrugatus (Pennant, 1777)

[*Cancer corrugatus* Pennant, 1777: 5. Pl. 5, fig.9; *Portunus corrugatus* Leach, 1814*a*: 390; Leach, 1815: 315; Leach, 1816*a*: text to Tab. VII (not VIII) figs 1–2; White, 1847: 25]

Pennant (1777) cites . . . *Skie, opposite to Loch Jurn* . . . as the locality. Leach (1814) mentions specimens from . . . *Mus. Montagu* . . . but without additional information and later (Leach, 1815 & 1816*a*) from . . . *Plymouth Sound* . . . (Prideaux collected). White (1847) lists specimens **a–c** from Plymouth Sound, Montagu collection.

Only a ♂ 34.5mm from 'Mus. Montagu', registered as no. **17c** is extant.

Liocarcinus depurator (Linnaeus, 1758)

[*Cancer depurator* & var. A Pennant, 1777: 4, Pl. IV, fig. A VI; *Portunus depurator* Leach 1814*a*: 390; Leach, 1816*a*, text to & Tab. IX, figs 1,2; White, 1847: 24.]

Pennant (1777) does not give a locality for his material. Leach (1814) cites . . . *European ocean and all shores of Great Britain* . . . and later (Leach, 1816*a*) . . . *British coast.* . . . White (1847) lists specimens **a–f** young. Britain, Montagu and Leach collections.

A small female 18.0mm labelled 'C.depurator.A' is present in the Pennant collection and may be the specimen depicted in his Pl. IV, fig. A VI. The six small specimens cited by White from Britain are all juvenile *L.holsatus*, (redetermined by Palmer, *circa* 1926. These are registered as no. **18.**

are all very juvenile and represented by specimens: **a** 7.5mm; **b** 10.0mm; **c** 11.5mm; **d** 10.5mm; **e** 9.5mm; **f** 12.5mm.

Liocarcinus holsatus (Fabricius, 1798)

[*Cancer depurator* Pennant, 1777: 4, Pl. II, fig. 6; *Portunus lividus* Leach, 1814*a*: 390; Leach, 1815: 317; Leach 1816*a*: text to & Tab. IX, figs 3–4; White, 1847: 25]

Two males, measuring 30.0mm and 33.0mm respectively are present in the Pennant collection. The smallest is labelled 'C.depurator' and may be the specimen depicted by Pennant (1777). Leach (1814*a*) cites a specimen collected at . . . *Newhaven* . . . (Firth of Forth), He also found one among *depurator* specimens from this locality and saw another in the collections of Montagu. White (1847) lists specimens **a–d** from Sandgate, Montagu collection and **e** Firth of Forth (Newhaven).

Extant material, registered as no. **226**, comprise: **b** ♂ 29.0mm; **c** ♀ 20.0mm both from Sandgate; **e** ♂ 38.5mm, Newhaven, Firth of Forth.

Liocarcinus marmoreus (Leach, 1814)

[*Portunus marmoreus* Leach, 1814*a*: 390; Leach, 1815: 317; Leach, 1815*b*: text to & Tab. VIII; White, 1847: 25; *Liocarcinus marmoreus*: Christiansen, 1969: 60]

Leach (1814*a*) gives the locality as Torcross, Devon (discovered by Montagu) and later (Leach, 1815*b*) cites . . . *Southern coast of Devon, from Torcross to the mouth of the river Ex* . . . White (1847) lists specimens **a–e** Falmouth and **b–g** South coast of Devon from Montagu & Leach collections. It is uncertain whether or not the Falmouth specimens are part of the Leach collection and it is not possible to assign existing specimens to the specific localities mentioned by Leach.

Extant material, registered as no. **227**, comprise: **c** ♂ 24.5mm; **d** ♂ 28.5mm; **f** ♀ 25.0mm (lectotype selected by I. Gordon, see Christiansen, 1969) **g** ♀ 18.0mm.

Liocarcinus pusillus (Leach, 1815)

[*Portunus pusillus* Leach, 1815: 318; Leach, 1816*a*: text to & Tab. IX, figs 5–8; White, 1847: 26; *Macropipus pusillus*: Christiansen, 1969: 58]

Leach (1815) cites . . . *Danmoniae Australis* . . . (= south of The Lizard) and . . . *Frith of Forth* . . . (Scotland) and later (Leach, 1816*a*) . . . *some parts of southern coast of Devon* . . . White (1847) lists these localities for specimens he designated **a–f** from Montagu & Leach collections.

Extant material, registered as no. **228**, comprise: Firth of Forth **b** ♂ 6.0mm. South coast of Devon **c** ♂ 7.5mm; **d** ♀ 10.5mm **e** ♂ 10.5mm. White also lists **g–n** without additional information but which are presumably also from one or both of the above mentioned localities. These now comprise: **g** ♀ 14.0mm; **h** ♀ 13.0mm (lectotype, selected by I. Gordon, 1968: 320, now in the Alcohol Collection); **j** ♀ 12.0mm; **k** ♀ 11.0mm; **l** ♀ 8.5mm; **m** ♀ 9.0mm; **n** ♀ 10.0mm.

Lissa chiragra (Fabricius, 1775)

[*Lissa chiragra* Leach 1815*a*; 70, Pl. 83; White, 1847: 5]

Leach 1815*a*) cites . . . *Mari Mediterraneo* . . . as the locality of his material and also . . . *said to have been taken on coast of Cornwall by Mr. Swainson.* White (1847) lists specimens **a & b** from the Mediterranean without additional information; these must be the Leach specimens.

Extant material, registered as no. **72**, comprises: **a** ♂ 34.0mm; **b** ♀ 40.0mm.

Lupella forceps (Fabricius, 1793)

[*Lupa forceps* Leach, 1814: 123; Leach 1815: 319; Leach, 1816: 411; White, 1847: 28]

Leach (1814) states . . . *Dr P. Browne has given a good figure of this animal in tab 42, fig.2 of his History of Jamaica, from which island the specimen here figured, was received.* A specimen labelled 'S. America' and registered as no. **29** is the only one contemporary with White's period but there is no additional information to suggest that this represents the Leach specimen.

Macropipus rugosus (Doflein, 1904)

[*Portunus* (n.sp.) Leach, 1818: 413; Monod, 1970: 66]

Leach (1818) cites *Gulphe of Guinea*. This specimen, a ♂ 20.50mm., bears a black-edged label inscribed 'Portunus Gulphe of Guinea J. Cranch Congo Expedition'.

Macropodia tenuirostris (Leach, 1814*a*)

[*Leptopodia tenuirostris*: Leach, 1814a: 431; *Macropodia tenuirostris:* Leach, 1815: 331; Leach, 1815*b*, text to & Tab. XXIII, figs 1–5; *Stenorhynchus tenuirostris* White, 1847: 2]

Leach (1814*a*) cites ... *Plymouth Sound* ... and later (Leach, 1815) ... *in Angliae occidentalis* ... but also (Leach, 1815b) states that he ... *first observed this species amongst some crustacea collected at Torquay, in Southern Devon, by Hooker* ... and also mentions Sound of Plymouth. White (1847) cites specimens **a-f** from Devon, Montagu collection and **l-q** as carapaces and forelegs respectively, without additional information.

Extant material, labelled collectively 'Devon' and registered as no. **247** comprise: **a** ♂ 14.5mm; **b** ♂ 15.0mm; **c** ♂ 21.0mm; **d** ♂ 6.0mm; **f** ♀ 12.5mm; **g** ♀ 12mm; **h** ♀ 14.5mm.

Maja squinado (Herbst, 1788)

[*Maia squinado:* Leach, 1814a: 394; *Maya squinado:* Leach, 1815: 326; Leach, 1817*b*: text to and Tab. XVIII; White, 1847: 8]

Leach (1814*a*) cites ... *Mediterranean Sea* ... as the locality, ... *Mari Angliae australi et occidentali* ... (Leach, 1815), and later (Leach, 1817b) ... *South Western coasts of Devon and Cornwall.* ... White (1847) lists specimens **b-h** as from S.W Coast of Devon but without additional information. These specimens may be those examined by Leach whereas the Mediterranean locality cited by Leach in (1814*a*) may relate to the specimens of *Maja verrucosa* listed by White as **d-f** from this locality.

Extant material of *M.squinado*, probably studied by Leach, registered as no. **78**, comprise: **c** ♂ 66.5mm; **e** ♀ 42.5mm; **f** ♀ 64.0mm; **g** ♀ 100.0mm; **h** ♀ 130.0mm.

Matuta lunaris (Forskal, 1775)

[*Matuta peronii* Leach, 1817*a*: 13; *Matuta lunaris* Leach, 1817*a*: 13; *Matuta banksii* Leach, 1817*a*: 14; *Matuta lesueurii* Leach, 1817*a*: 14;; *Matuta victor* White, 1847: 46]

Leach (1817*a*) cites ... *Isle of France* ... for his material of *M.lunaris*. White (1847) lists specimens **a & b** from this locality. These specimens have not been found among the *Matuta* material. Leach (1817*a*) gives Indian Ocean as the locality for his *M.peronii* material, and White (1847) lists these specimens as **d,e** under *M.victor*.

Specimens, originally in the Dry Collection, were labelled as follows. A ♀ 31.0mm bearing a small printed label inscribed 'India' and an additional label inscribed 'Peronii'. This is presumably one of the specimens cited by White as 'd,e'. There was also a nearby label inscribed 'Peronii Leach 472' but as the register entry for this number gives 'Isle of France', this label may have belonged to a specimen now missing. A ♂ 30.0mm had a label nearby reading 'lesueurii Leach 473'; the register gives New Holland for this number and Leach, 1814 cites ... *Australasiae mari* ... as the locality. However, this specimen has 'Pondicherry' written on the right fifth pereopod and therefore cannot be considered part of the material cited by Leach as *M.lesuerii*. Specimens of *M.banksii* have not been located. These specimens are currently being revised by Galil & Clark and all have been transferred to the Alcohol Collection.

Menaethius diadema Leach MS

[*Menaethius diadema* White, 1847: 10]

White (1847) lists specimen **a** from the Isle of France, Leach collection. A note in his handwriting in the NHM copy of his 1847 publication states ... *young female of last* (ie of his *M.subserratus* Adams & White, 1848: 18).

The extant specimen, an unregistered ♀ 10.0mm., bears a *Mus. Leach* label inscribed 'Blastia diadema'.

Menaethius monoceros (Latreille, 1825)

[*Menaethius porcellus* n.s White, 1847: 10; Adams & White, 1848: 16; *Menaethius tuberculatus* White, 1847: 10; Adams & White, 1848: 19]

White (1847) lists for *M.porcellus* specimens **a & b** from Isle of France, Leach collection, and also specimen **c** without additional information. For *M.tuberculatus* he lists specimen **a** also from Isle of France, Leach collection.

Extant material, labelled *M.porcellus*, registered as no. **365**, comprise: **a** ♂ 14.0mm; **b** ♂ 25.0mm; **c** ♂ 19.0mm. Specimen **b** has an attached *Mus. Leach* label inscribed 'Blastia monoceros' and also a label, in Miers handwriting, inscribed 'porcellus Wh. see register no 365'. The *M.tuberculatus* specimens is represented by a ♂ 16.0mm with an attached *Mus. Leach* label inscribed 'Blastia tubereulatus'.

Mictyris longicarpus Latreille, 1806
[*Myctiris longicarpus*, White, 1847: 34]
White (1847) lists specimens **a & b**, New Holland, Leach collection. These are registered as no. **439** and comprise: **a** ♀ 19.0mm; **b** ♀ 22.0mm.

Mursia cristimanus (de Haan, 1837)
[*Mursia cristata* Leach MSS; White, 1847: 45],
White (1847) lists specimen **a** from the Indian Ocean. In the NHM copy of this publication this locality has been amended to 'Africa'. Above the label 'cristimana' is a note by Isabella Gordon reading '(types) 4 specimens relaxed XII/38'. However, these have not been located among the alcohol preserved material.

Myra fugnax (Fabricius, 1798)
[*Myra fugnax* Leach, 1817*a*: 24, White, 1847: 49]
Leach (1817*a*) cites . . . *mari Indico* as the locality. White (1847) lists specimens **a & b** from Indian Ocean.

Extant material, registered as no. **92**, comprise: **a** ♂ 32.0mm; **b** ♂ 37.0mm.

Necora puber (Linnaeus, 1767)
[*Cancer velutinus* Pennant, 1777: 5, Pl IV, fig. 8 *Portunus puber*: Leach, 1814*a*: 390; Leach, 1815: 315; Leach, 1816*a*: text to and Tab. VI; White, 1847: 24]
A large male measuring 62.0mm labelled '*C.velutinus*', from the Pennant Collection,registered as 1912.12.31.1, is probably the specimen figured by Pennant (1777) who states that the species . . . *Inhabits the Western coast of Anglesey*. Leach (1814a) gives Devonshire as the British locality, . . . *oceano Europae* . . . (Leach, 1815) and . . . *South-Western coast of Devonshire* . . . (Leach, 1816*a*). White (1847) lists specimens **a-e** from S.W. coast of Devon, from Leach & Montagu collections, and **f** from Devon but without additional information.

Extant Leach material, labelled S.W. coast of Devon and registered as no. **19**, comprise: **a** juv. 6.50mm; **b**?♂ 10.50mm; **c** ♂ 21.0mm; **d** ♂ 40.0mm.

Neosarmatium meinerti (de Man, 1887)
[*Sesarma tetragonum* White, 1847: 38]
White (1847) lists specimen **a** from Isle of France, Leach collection. This ♀ 30.0mm, registered as no. **584d** bears a small printed label attached to the merus of the fifth left pereiopod inscribed 'Isle of France'. The accession number has been deleted in the register and the trivial name 'taeniolata n.s' substituted, presumably by White.

Ocypode cordimanus (Latreille, 1818)
[*Ocypode cursor* White, 1847: 35]
White (1847) lists specimens **a & b**, from Isle of France, Leach collection although only **a** is entered under no. **755** in the register.

Extant material comprise: ♂ 26.0mm, purchased at Steven's sale.

Oziothephusa ?senex senex (Fabricius, 1798)
[*Telphusa indica*: White, 1847: 30]
White (1847) lists specimens **a & b**, from Isle of France, Leach collection. A fragmented ♀ 25.0mm with an associated label inscribed 'Isle of France, Mathieu. Mus. Leach' but without a registration number is present in the Dry Collection and may be one of the two specimens cited by White; the other has not been located.

Pactolus boscii Leach, 1815a
[*Pactolus boscii* Leach, 1815*a*: 20, Pl. 68; *Leptopodia sagittaria* White, 1847: 1]
Leach (1815*a*) states . . . *locality unknown* . . . and White (1847) lists specimen **j**, remarking . . . *carapace of a female, with the legs of another crab artificially coloured* . . .

This specimen, a ♀ 40.0mm, is entered as no. **83** in the register and must be considered the holotype.

Parthenope horrida (Leach, 1814*a*)

[*Maia horrida* Leach, 1814*a*: 394; *Parthenope horrida* Leach, 1814*a*: 431; Leach, 1815*a*: 107, Tab. XCVIII; White, 1847: 12]

Leach does not cite specific material in his accounts but states . . . *Inhabits the Asiatic Ocean*. White (1847) lists specimens **a-d** from . . . *Isle of France* . . . and from the collection of M.Matthieu.

Extant material has an attached *Mus. Leach* label inscribed 'Isle of France. M.Mathieu . . .' and is represented by a ♀ 67.0mm registered as no. **69c**, and an unregistered ♂ 24.0mm; both must be considered syntypes.

Persephona lichtensteinii Leach, 1817*a*

[*Persephona lichtensteinii* Leach, 1817*a*: 23; White, 1847: 47]

Leach (1817*a*) cites one female in . . . *Mus. Brit* . . . White (1847) lists specimen **a** male and **b** female. The locality is unknown.

These two specimens, bearing an old registration number **97**, were transferred from the Dry to the Alcohol Collection and re-registered as **1939.9.20.8-9**. Because Leach cited a female only (26.0mm) this must be considered the holotype and the male (27.0mm) as a paratype.

Persephona punctata punctata (Linnaeus, 1758)

[*Persephona latreilli* Leach, 1817*a*: 22; *Persephona lamarckii* Leach, 1817*a*: 23; *Persephona latreillii & P. lamarckii* White, 1847: 47; *Persephona guaia* Bell, 1855; 292]

Leach (1817*a*) does not list a locality for *P.latreillii* but Bell (1855), using the name *guaia* for this material, mentions that it originated from the Sloane Collection and therefore from the West Indies. Leach's specimen of *P.lamarckii* came from Professor Lamarck. White (1847) lists, under *P.latreillii*, specimen **d** from Sloane's collection, and under *P.lamarckii*, specimen **a** presented by M. Lamarck.

A ♀ 42.0mm inscribed 'Sloane 2048' and with an associated label 'West Indies' must be the specimen cited as **d** by White (registered as **96d**); the specimen presented by Lamarck (registered as no. **96a**) is a ♂ 52.0mm.

Phalangipus indica (Leach, 1815*a*)

[*Egeria indica* Leach, 1815*a*: 40; White, 1847: 3]

Leach (1815*a*) cites . . . *habitat in oceano Indica* . . . and . . . *Mus. Societ. Linn. et Mus. Britann* . . . but without additional information. White (1847) lists a male from the Indian Ocean, presented by General Th. Hardwicke.

The Leach specimen has not been found.

Philyra globosa (Fabricius, 1798)

[*Philyra globosa*· Leach, 1817*a*: 22; White, 1847: 47]

Leach (1817*a*) cites . . . *Habitat in mari Indico* . . . and . . . *Mus.Linn.Soc., Nostre* ♂ ♀ . . . White (1847) cites . . . *Malabar* . . . as the locality for specimens **a & b** but without additional information.

A ♂ 19.0mm has a nearby label inscribed 'Indian Ocean 89' but there is no evidence that this is one of the Leach specimens. However, as Leach cites a male and a female in the Linnean Society Museum (specimens from which were acquired by the BM), two specimens in the Dry Collection, a ♂ 19.0mm and ♀ 22.0mm bearing printed labels inscribed 'Banks Coll.' but without further details, may be those cited by Leach.

Philyra scabriuscula (Fabricius, 1798)

[*Philyra scrabriuscula:*, Leach, 1817*a*: 22; White, 1847: 47]

Leach (1817*a*) cites a male and female from . . . *mari Indico* . . . in . . . *Mus. Soc. Linn* . . . White (1847) lists specimens **a-c** from the Indian Ocean without additional information

Extant specimens, registered as no. **88** comprise: **a** ♀ 10.0mm; **b** ♂ 9.50mm; **c** ♂ 12.0mm. The specimen **b** has the additional registration number **46b**, but this does not relate to this specimen. It is uncertain whether or not all are Leach specimens.

Phyllodorippe armata (Miers, 1881)

[*Dorippe* Leach, 1818:414; *Dorippe armata* (nomen nudum) White, 1847: 54; Monod, 1970: 66]

White (1847) lists specimen **a** Atlantic Ocean (Congo Expedition) and this ♂, 21.0mm was figured by Miers (1881*c*: 269).

Pilumnus hirtellus (Linnaeus, 1761)

[*Cancer hirtellus*: Pennant, 1777: 4, Pl IV, fig. 11; Leach, 1814*a*: 391; *Pilumnus hirtellus:* Leach, 1815: 321; Leach, 1816*a*: text to and Tab. XII; White, 1847: 21]

Leach (1814*a*) cites . . . *Devonshire* . . . as the locality and later (Leach, 1816a) south-western coast of Devonshire . . . *from Plymouth to Berry Head*. White (1847) lists specimens **a-d** from Devon and **e-l** England, all from Montagu & Leach Collections and specimen **o** from Devon but without additional information.

Extant material **a-d** labelled 'S.W. coast of Devonshire' and **e-l** labelled 'S. England', registered as no. **232** comprise: **a** juv. 2.0mm; **b** juv. 4.50mm; **c** juv. 5.0mm; **d** ♂ 6.0mm; **e** ♂ 9.0mm; **h** ♂ 15.0m; **i** ♀ 14mm; **j** ♀ 9.50mm; **k** ♀ 13.5mm Another ♂ 11.50mm is also labelled **b**.

Pinnotheres pinnotheres (Linnaeus, 1758)

[*Pinnotheres pinnae* Leach, 1814*a*: 431; *Pinnotheres veterum* Leach, 1815*b*: text to & Tab. XV, figs 1–5; *Pinnotheres montagui* Leach, 1815*b*: text to & Tab. XV figs 6–8]

Leach (1814a) cites . . . *Salcombe estuary* . . . (Montagu collected) for his *P.veterum* material, and he obtained additional specimens from Cranch. His specimens of *P.montagui* also came from Salcombe, collected by Montagu.

Extant material, registered as nos. **236** comprise: **a** ♂ 5.0mm; **b** ♀ 13.0mm; **c** ♀ 14.50mm (all *P.veterum*) and no.**237**, ♂ 6.0mm (*P.montagui*).

Pinnotheres pisum (Linnaeus, 1758)

[*?Cancer minutus* Pennant, 1777: 1; *Pinnotheres mytilorum*, *P.mytili* Leach, 1814*a*: 430; *Pinnotheres modioli* Leach, 1814*a*: 431; *Pinnotheres pisum*: Leach, 1814*a*: 394; Leach, 1815*b*: text to & Tab. XIV, figs 1–3; *Pinnotheres cranchii* Leach, 1815*b*: text to & Tab. XIV, figs 4, 5; Leach, 1816: 413; *Pinnotheres latreillii Leach, 1815b*: text to and Tab. XIV, figs 6–8; *Pinnotheres varians* Leach, 1814: 394 & 430; 1815a: text to & Tab. XIV, figs 9–11; *Pinnotheres pisum:* White, 1847: 32]

Leach (1814*a*, 1815*b*) does not mention localities for his *P.pisum* material. For *P.varians* he states that it is common in the . . . *Frith of Forth*. For *P.cranchii* he remarks that the species was . . . *discovered by Mr. J. Cranch in the Kingsbridge estuary . . . in Modioli & Mytili* . . . and he collected *P.latreillii* from the . . . *Frith of Forth*. White (1847) lists under *P.pisum*, specimens **a-g** Sandgate (*P.pisum*), **h-n** Sandgate (*P.varians*), **o** Firth of Forth (*P.latreillii*), all as Leach material.

Extant specimens, registered as no. **232**, comprise: **a** ♀ 4.50mm; **b** ♀ 4.50mm; **c** ♀ 7.50mm;; **d** ♀ 9.0mm; **f** ♀ 12.0mm; **g** ♀ 10.0mm (all *pisum*), **h** ♂ 4.0mm; **i** ♂ 5.0mm; **k** ♂ 6.0mm; **l** ♂ 6.50mm; **m** ♂ 7.0mm; **n** ♂ 8.0mm (all *P.varians*); **o** ♀ 4.0mm (*P.latreillii*).

Pirimela denticulata (Montagu, 1808)

[*Cancer denticulatus* Montagu, 1808: 87; Leach, 1814*a*: 391; *Pirimela denticulata* Leach, 1816*a*: text to & Tab. III; White, 1847: 22; 1850: 11]

Montagu's type locality is Sandwich coast (specimen obtained by Mr Boys). Leach (1814a) cites . . . *England and Scotland* . . . as localities and later (Leach, 1816*a*) lists additional localities Bantham, south coast of Devon (Prideaux collected), Torquay (Dr. Goodall collected). He also saw . . . *a specimen in the cabinet of Mr. Donoven, which I am assured, came from the coast of Scotland* . . . White (1847) cites specimens **a-d** from S. coast of Devon, **e-g** without localities, all from Montagu & Leach collections and **h** from Britain, Montagu Collection. However, White (1850) gives south coast of Devon and Kent for specimens **a-d**; the type locality occurs within the last mentioned county.

Of the extant material only specimen **c** can be identified as the one donated by Dr. Goodall. Specimen **h** to which only Montagu's name is accredited, although smaller than the size mentioned, was selected as the lectotype of the species by I. Gordon in 1968.

Extant specimens, registered as no. **13**, comprise: **a** juv. 3.0mm; **b** juv. 3.50mm; **c** juv. 3.50mm; **d** ♂ 6.0mm, all labelled South coast of Devon; **f** ♂ 9.50mm; **h** ♀ 8.50mm (lectotype). There is also a carapace 13.0mm labelled '**j** Scotland' (perhaps the Donovan specimen).

Pisa armata (Latreille, 1803)

[*Cancer biaculeatus* Montagu, 1813: 2; *Pisa biaculeata:* Leach, 1814: 431; *Pisa gibbsii* Leach, 1815: 327; Leach, 1815*b*: text to and Tab. XIX; *Arctopsis lanata* White, 1847: 5; *Arctopsis armata:* White, 1847: 5.]

Montagu (1813) does not list a specific locality although his single specimen was probably taken

off the Devonshire coast. Leach (1815*b*) gives southern coasts of Devon and Cornwall as localities. White (1847) lists (as *A. lanata*) specimens **a-l** from these regions, (from Montagu & Leach collections), **m & n** from Jersey (not found among the present material but that were also Leach specimens according to the register), and (as *A. armata*) specimen **a** from Italy from the Leach Collection.

Extant material, registered as no. **73** comprise: **a** juv. 8.0mm; **b** ♂ 11.0mm; **c** ♂ 19.0mm; **d** ♂ 21.0mm; **e** ♂ 43.0mm; **f** ♂ 46.0mm; **h** ♀ 30.0mm; **j** ♀ 19.0mm; **k** ♀ 14.0mm; one unlabelled ♀ 45.0mm may represent **g** or **i.** All are labelled Devonshire coast. The specimen from Italy, is an unregistered ♂ 55.0mm.

Pisa corallina (Risso, 1816)

[*Pisa corallina* White, 1847: 4]

White (1847) lists specimens **a** from Nice, but without additional information, and **b & c** from Sicily, Leach collection.

Extant material, registered as no. **363**, comprise: **a** ♀ 25.0mm; **b** ♂ 42.0mm; **c** ♂ 23.0mm.

Pisa nodipes Leach, 1815*a*

[*Pisa nodipes* Leach, 1815*a*: 50, Pl. 78; White, 1847: 5]

Leach (1815*a*) does not mention a locality but White (1847) lists specimens **a-c** from Marseilles, as Leach specimens.

Extant material, (considered syntypes), registered as no. **74**, comprise: **a** ♂ 32.0mm; **b** ♀ 38.0mm, **c** ♀ 32.0mm. The last mentioned bears a *Mus. Leach* label inscribed 'Pisa nodipes Marseilles. Given by Dr Roux . . .' There is an additional ♀ 35.0mm nearby labelled 'Marseilles' but without further information.

Pisa tetraodon (Pennant, 1777)

[*Cancer tetraodon* Pennant, 1777: 7, Tab. VIII, fig. XV; *Pisa tetraodon* Leach, 1815: 328; *Blastus tetraodon* Leach, 1816: 431; *Pisa tetraodon* Leach, 1817*b*: text to and Tab. XX, figs 1, 2; White, 1847: 4.]

. . . *Angliae australi-occidentalis mari* . . . is cited by Leach (1815), . . . *south-west coast of England* . . . (Leach, 1816) and . . . *Isle of Wight* . . . (Pennant's locality) . . . *Brighton and Teignmouth* . . . (Leach, 1817*b*). White (1847) lists specimens **a-f** from S. of England, without additional information, and specimens **p-s** Tripoli, Leach Collection.

Extant material, labelled collectively 'South of England' and registered as no. **75** comprise: **a** ♂ 34.0mm; **b** ♂ 40.0mm; **c** ♂ 45.0mm; **d** ♀ 22.0mm; **e** ♀ 27.0mm; **f** ♀ 44.0mm. In the register it is stated that specimen **c** is the one figured by Leach (1817*b* Tab. XX, fig. 1) and specimen **f** as fig. 2. The Tripoli material is represented by four specimens, each with a small locality label but without a registration number; these comprise: ♀ 18.0mm; ♂ 26.0mm; ♂ 30.0mm; ♀ 16.0mm.

Plagusia depressa (Fabricius, 1775)

[*Plagusia squamosa:* White, 1847: 43]

White (1847) lists a male labelled **g** from Isle of France, Leach collection. A label in Adam White's handwriting inscribed '*Plagusia squamosa* Ocean, 466' is placed to the left of several dry specimens but cannot be satisfactorily assigned to any particular one. The register entry for this number (**466**) gives Isle of France.

Planes minutus (Linnaeus, 1758)

[*Grapsus minutus*: Leach, 1813: 414; *Planes linnaeana* Leach, 1875: text to & Tab. XXVII, figs 1–3; White, 1847: 41]

Leach (1818) cites this and a new species from the Gulf of Guinea and (Leach, 1875) . . . *Devon and Cornwall* . . . for material examined. White (1847) lists, for Leach material, specimens **a-c** from Devonshire?, and **d** a young female from South Atlantic.

Extant material, unregistered, comprise: 2♂♂ 13.0 & 14.0mm, from Gulf of Guinea (Congo Expedition); there are also 2♂♂, 10.0mm and 1♀ 8.0mm, with an associated label inscribed 'Received from Dr. Leach with a collection of Devonshire Insects but without the habitat. It appears to be the same as received from Mr Say from N. America under the name of *Grapsus pelagicus*' On the reverse side of this label Adam White has written- '*Planes linnai* Leach written with pencil on bottom of drawer'.

Podophthalmus vigil (Fabricius, 1798)

[*Podophthalmus vigil*: Leach, 1815*a*: 149; White, 1847: 29]

Leach (1815*a*) mentions that his specimen was obtained from Mr Mathieu, Isle of France. Although White (1847) lists this specimen as **a** from Isle of France, Leach collection, it has not been found.

Polybius henslowii Leach, 1820

[*Polybius henslowii* Leach, 1820: text to and Tab. IXB; White, 1847: 24; Christiansen, 1969: 68]

Leach (1820) cites localities . . . *Northern coast of Devon* . . . (Henslow collected), . . . *off Bigbury Bay, in the South-Western coast of Devon* . . . (Prideaux collected) . . . *opposite Portland Island* . . . (Goodall collected), . . . *in the collection of the Linnean Society* . . . *off coast of Spain* . . . *Sir Joseph Banks*. White (1847) lists specimens **a-e** from S.W. coast of Devon, Leach and Montagu collections. There is no evidence that the latter had material of this species. The Banks specimen has not been found.

Extant specimens, registered as no. **231**, comprise: **a** ♂ 42.50mm (lectotype); **b** ♂ 42.50mm; **c** ♀ 37.0mm (paralectotypes) selected by **1**. Gordon.

Portumnus latipes (Pennant, 1777)

[*Cancer latipes* Pennant, 1777: 3, Pl. 1, fig. 4; *Portumnus variegatus* Leach, 1814a: 391; Leach, 1815b: text to and Tab. IV; *Portumnus latipes:* White, 1847: 23]

A female 19.0mm, registered as 1912. 12.31.2 is labelled by W. T. Calman as the type and this may be the specimen figured by Pennant (1777, Pl. 1, fig. 4). It is one of the Pennant specimens received from the Earl of Denbigh in 1912. Leach (1814a) cites . . . *Great Britain* . . . and later (Leach, 1815*b*) . . . *southern coast of Devonshire* . . . (Prideaux collected). White (1847) lists specimens **a-e** from Devon, Montagu Collection and **f-h** young presented by Dr. Goodall (a collector from whom Leach occasionally obtained specimens).

Extant material, in addition to the holotype, registered as no. **14**, comprise: **b** ♂ 25.5mm; **c** ♀ 20.5mm; **d** ♀ 19.5mm; **e** ♀ 13.0mm

Portunus spinimanus Latreille, 1819

[*Lupa banksii* Leach, 1815: 319; *Achelous spinimanus*: White, 1847: 28]

Leach (1815) cites . . . *Mus. Brit/ ex dono Josephi Banks* . . . for his material. White (1847) lists specimens **c-e** from the West Indies and presented by Banks.

A ♀ 43.0mm has a label nearby inscribed '*Achelous spinimanus* Des. var/ *L.Banksii* Leach Jamaica' and with the registration number **920**. However, the register entry against this number reads 'a,b West Indies purchd. of Scrivener'. There is a note by Isabella Gordon in the Crustacea Section Library copy of White's 1847 publication to the effect that one of the **c-e** specimens listed by White was destroyed during the war and that a Banks collection label was found on fragements of one specimen. None of the Dry collection '*Achelous*' can now be identified as representing the Banks specimens listed by White.

Portunus validus Herklots, 1851

[*Lupa* (part) Leach, 1818: 413; *Lupa Cranchiana* Leach MS; *Neptunus sanguinolentus* (part), White, 1847: 27; *Portunus validus:* Monod, 1970: 66]

White (1847) lists the Leach specimens as **f-h** from W. coast of Africa (Congo Expedition). The extant specimen is an unregistered ♀ 29.0mm and now in the alcohol collection; a part of one copied label is inscribed 'On a floating Thalassiophyta Lat. 30°N. Long 36° Congo Expd.'

Sesarma (Chiromantes) cinereum (Bosc, 1802)

[*Sesarma cinerea:* White, 1847: 38]

White, 1847 lists specimens **b & c** from United States, Leach Collection. The only specimen located is a ♂ 14.0mm with a *Mus. Leach* label inscribed '*Sesarma cinerea* Say . . .' but without a registration number or additional details.

Stenorhynchus seticornis (Herbst, 1788)

[*Leptopodia seticornis:* Leach, 1815*a*; 16, Pl. 67; White, 1847: 1]

Leach (1815*a*) cites . . . *habitat in mari Carribeo* . . . as the locality. White (1847) lists specimens **a-h** from the West Indies, but in the register 'Caribean Sea' is entered against **a-e** and these are probably the Leach specimens.

Extant material, registered as no. **83**, comprise: **b** ♂ 37.0mm; **c** ♂ 60.0mm; **d** ♂ 46.0mm.

Thia scutellata (Fabricius, 1793)

[*Thia polita* Leach, 1815: 312; Leach, 1815*a*: 120, fig. 103; White, 1847: 52; Leach, 1875: text to & Tab. IXA, figs 4–6]

Leach does not cite a locality or donor for his *Thia polita* in any publication. White (1847) lists specimen a from the Mediterranean, Leach collection.

A ♂ 11.0mm from this location bears a 'type' label and the registration number **50.8**. This accession entry lists Capt. Parry as the donor.

Varuna litterata (Fabricius, 1798)

[*Trichopus litteratus:* White, 1847: 43]

White (1847) lists specimen a from the Isle of France, Leach collection. This is a ♀ 40.0mm, registered as no. **349**.

Xantho incisus Leach, 1814

[*Cancer floridus* Montagu, 1808: 85, Tab. 11, fig. 1; *Cancer incisus* Leach, 1814*a*: 391; *Xantho florida*: Leach, 1815: 320; Leach, 1816*a*: text to & Tab. XI; White, 1847: 16]

Montagu, 1808 cites . . . *coast of Devon* . . . as the locality and . . . *southern coast of Devon* . . . is quoted by Leach (1816*a*). White (1847) lists specimens **a-g** from the S. coast of Devon, Montagu & Leach Collections.

Extant material, registered as no. **32**, comprise: **a** ♂ juv 11.0mm; **b** ♂ 12.0mm; **c** ♂ 31.0mm; **e** ♀ 20.0mm & ♀ 25.0mm (two specimens are labelled **e**). All are considered syntypes.

Zoea clavata Leach, 1818

[*Zoea clavata* Leach, 1818: 414, fig; White, 1847: 80; Monod, 1970: 66]

White lists specimen a Atlantic Ocean (1°S Lat. 8°W Long) but Monod (1970) pointed out that this should read '1°S-8°E'

Leach's specimen (a dorippid zoea) is in alcohol and registerd as no. **690a**. Its total length (from tip of dorsal spine to tip of telson furcae) measures 18.0mm

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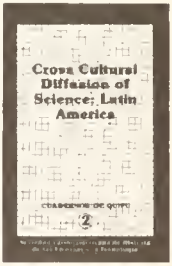

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CONTENTS

161 Carcinology in the Natural History Museum, London; the brachyuran crab collectio and their curation from 1813–1904 (Leach to Calman)
R. W. INGLE

Bulletin British Museum (Natural History)
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